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# Introduction

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Dear Reader,

We live in a time of complex problems, global warming overarching all others. A formidable burden with many facets threatens to defeat all hope. Yet a hope shared and activated may be expanded in countless multiples. Although discourse on reversing global warming is scant, my work shows that there's a real alchemy of possibilities waiting to be engaged in.

This is just a story—one I am eager to tell—of my experience of the last ten years, including those I've talked with, what I've learned, my current thinking and why I believe a measure of hope remains present and permitted.

In 2003, satellite imagery of polar ice melt turned the 'future' climate change threat into a current emergency. Then as now sane responses appeared obvious; that all sensible efforts be embarked on to restore safe climate conditions.

Over the ensuing years, I ran myself ragged promoting action while struggling with the resistance(s) to the call for precautionary action. I was alarmed by inadequate responses and strange silences and distressed by incoherence—my own and the movement's. I flirted with despair, sadness and rage affecting my health. I needed parameters to support me, so in 2009 I took the strategic decision to develop my work through engaging in doctoral studies.

In the process, I recognised that some key things were missing altogether—some were invisible or had fallen through gaps; some had been deliberately misrepresented.

One clearly identifiable trait, unhelpful and with serious consequences, was 'Brightsiding' when dangerous things are made light of, bad news is unmentionable and silenced and good news is marketed. Brightsiding represents:

*a strategic failure to communicate. .... We have achieved a collective cognitive dissonance where the real challenge we face is excluded from the discourse. There is no solution within the politics-as-usual frame; and there is no developed frame outside it.*

(Spratt, 2012, para 4)

(<http://www.climatecodered.org/p/brightsiding.html>)

As these silences became increasingly alarming and maddening to me, doctoral studies grounded my work and allowed me to put principles and supports in place. They reassured when urgency threatened to overwhelm me. Their purpose was to more comprehensively understand the barriers preventing actions that could return the climate to conditions safe for this planet's current life forms – i.e. for the sake of all people, species and our civilisations, atmospheric carbon levels must be returned to around 280 to 300 parts per million (ppm).

I am deeply engaged in the groundswell-building work and, at the same time, curious how the movement can become more effective and successful; how it can keep its people together and deal with the traumatic set of circumstances we have to face. This thesis and the investigations it documents reflects deeply into what I and others do, what is being achieved and what more and what else needs to be done. My own journey is predicated on a belief in the societal and individual benefits and empowerment engendered by life-long *experiential learning* (Kolb, 1984) and *the learning society* (Schön, 1983) and by trusting that these approaches can generate enough awareness amongst enough people to step up and surmount the seemingly insurmountable (Heron & Reason, 1997).

My real interest is in the proposing of theories about and practices by movements intending to change the world as galvanising and supporting relational processes, at times leading from behind and occasionally from the front, encouraging others to become active and more active.

As a '*reflective practitioner*', a persistent thread has been the importance of *experiential learning*. First as a student-teacher learning about the work of Jean Piaget and others, and then in 1982, with the Queensland University's Centre for Applied Behavioural Science, learning about change strategies and techniques (Dick, 1982) and Management and Organisational Development. Then, in 1998, studying Kolb's Learning Cycle for Post-Graduate studies in Leadership and Change. My life-time commitment reflects all of this, the participatory processes leading to the deeply reflective writing of this work its most recent expression. My lasting interest has been and is the quest to 'get people moving' and supported to keep moving, to look back at what we have done, to consider what has worked, what we have to do differently, to understand why things went wrong or were not enough. This is what Schön (1983) describes as *theory-in-use* which is further discussed in Chapter 3. Heron and Reason's notion of practical knowing is also useful here as it is grounded in all the other ways of knowing - the experiential, the presentational (arts and writing) and the conceptual (theoretical perspectives) For them practical knowing is the action that ideally leads to planetary flourishing.

It became evident that everything we humans have at our disposal needs to be gathered and

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activated now, to be as well-equipped as possible to deal with the hurdles we face – many of which we put in our own way. Active discouragement – even censorship - of climate emergency conversations and of the use of terms like *climate change* are examples of a massive blockage still in the way of achieving the scale and pace needed to tackle the problems we face. Sustained reflections on our experiences in this regard will increase our chances of success. While efforts to address and clean up the ‘mess’ (discussed in Chapter 2) are growing apace, even the best-case scenario for climate change reversal looks unlikely to avoid terrible trouble. Whatever happens, circumstances for billions of humans and countless species are set to get far worse even in the short term. The moral imperative remains: how to *reduce and manage risk*?

It is not surprising if the response to global warming appears to be ‘*all over the place*,’ on the one hand, we need to be doing so many things simultaneously that prioritising becomes extremely difficult. Indeed, time for incremental change and a strictly linear approach has passed. The scattergun, ‘*knee jerk*’ response can be consistent with an initial reaction to an emergency, but must now quickly give way to something more strategic, where priorities can be set and met (example: COVID-19!). More than one top priority needs to be identified and pursued.

Many reasons are elaborated in this work, indicating that not enough is being done to address the dire threat playing out as greenhouse gas emissions and Earth’s temperature continue to climb. The effort to generate the willingness and the demand to ‘*change tack*’ is challenging, yet movements are growing and, while it’s true that not a lot is coming forth from the ‘official’ side of things, a lot is happening on several grounds and now noticeably picking up pace. One way of galvanising community actions is via local, relevant groups; joining and supporting existing, authentic, ‘safe climate’ initiatives; and creating the authentic and unequivocal voice conveying a distinctly electoral message politicians cannot afford to ignore. The actions at the local level are also effective in introducing sustainable change, connecting people and enabling the transfer of ideas and greater awareness conveying a ‘can-do’ message with inspiration and ‘progress’ attached.

In her chairperson’s forward to Our Common Future report, Gro Harlem Brundtland wrote:

*In the final analysis, this is what it amounts to: furthering the common understanding and common spirit of responsibility so clearly needed in a divided world.... To this end, we appeal to “citizen” groups, to nongovernmental organisations, to education institutions, and to the scientific community. They have all played indispensable roles in the creation of public awareness and political change in the past. They will play a crucial part in putting the world onto sustainable development paths, in laying the groundwork for Our Common Future. (Brundtland, 1987, p.9)*

The upside is that the movement, building on the work of previous generations, standing on the shoulders of history's advocates for justice and a safer, healthier world, is (re)awakening now to improve lives and health within the biosphere globally. It may contain the potential to do just that.

*To manage change is to manage the future. To manage the future is to create a future that is different from what it would otherwise be. It is to do now those things that would bring about a better future.... Controlling the future is not easy. It requires changing the behaviour of other people, in other places, at other times.* (Dick, 1982a, p.2)

And now to the reason for this thesis...

The future is in our hands. The knowledge and conviction that global warming - *Anthropogenic* climate change - is a problem we, humans, created and that we can and should, therefore, contribute to solving continues to urge us to take action. We are at present part of humanity's shared quest to protect and evolve our own kind, build and be part of thriving communities, preserve a good life for our children's children and act responsibly vis-à-vis the multispecies and material conditions that sustain us. Having the capabilities to address and solve the alarming and complex problems we've created, the task in front of us is to halt and reverse the warming trend and restore safe climate conditions. Hence this work; I undertook it in the hope that it adds to my and others' efforts to make a difference.

The work is based on the premise that stopping the suicidal trajectory of a changing climate is still possible. The most important goal is to firstly and rapidly stop most if not all further carbon emissions. As well, the removal of carbon molecules from the atmosphere by bringing back to terrestrial earth the historical accumulation of carbon already emitted, a process referred to as '*draw-down.*' According to the National Oceanic and Atmospheric Administration (NOAA) and the Earth System Research Laboratory (ESRL)'s Global Monitoring Division, the measurements recorded at Mauna Loa hit a new peak of 414.11 ppm in February 2020 (<https://www.esrl.noaa.gov/gmd/ccgg/trends>) up from the monthly average of 401.51 ppm only three and a half years earlier in October 2016. (NOAA, 2017)

Notwithstanding climate change and the 6th mass extinction now on the way, the Earth will continue to exist; however, *life on Earth*, its diversity and viability will be severely impacted by human activity. "*Many scientists believe the world has begun a sixth mass extinction, the first caused by a species – Homo sapiens. Other recent analyses have revealed that humankind has destroyed 83% of all mammals and half of plants since the dawn of civilisation and that even if destruction were to end now, it would take 5-7million years for the natural world to recover.*" (Carrington, 2018, para 6)

The exquisite, exotic, fragile and vulnerable will be and are being extinguished and the first to go. As a species, humans may continue to exist, but in vastly reduced numbers. On the current trajectory, the experience of life will be impoverished to a degree most find unimaginable. The homeostasis that has supported humans since the most recent ice age throughout the Holocene epoch for the last 11,700 years is now being radically changed as the Earth responds to the excess of carbon. This very recent period during which humankind's influence has become so profound is referred to as the Anthropocene or, depending on the basis of the underlying analysis, by Donna Haraway (2016), Anna Tsing (2017), Timothy Morton (2016) and many others, the *Capitalocene*. Growing numbers of scientists believe that restoring homeostasis can potentially maintain most of the conditions that existed during the Holocene and that this must be our shared quest: preserving and restoring the biosphere. The decisions determining whether we will continue to inflict the damage on the Earth are being made *now*, by commission and by omission.

In the absence of any other remotely plausible meta-plan, a starting point for rapid transformative change is focused on clean energy, carbon drawdown and, quite possibly, as things stand, solar reflection methods (SRM). For this plan to work, we first have to accept that we are working to a very tight time frame and be prepared to apply the *precautionary principle*.

The permafrost areas are already defrosting and “*landslides in the European Alps are already becoming serious. The Mount Kilimanjaro ice cap, which has been intact for at least 11,000 years, is well on the way to disappearing*” (Spratt & Sutton, 2008 p. 90). As this extensive permafrost area, replete with methane, thaws and this trend continues, enormous quantities of this greenhouse gas, far deadlier in the short term (and the short term is what matters!) have the potential to be released. Sutton and Spratt go on to warn that:

*the permafrost and other sources of natural carbon could be so strongly mobilised, and the natural sinks so damaged, that the process of taking carbon dioxide out of the air would be overwhelmed. In one century, enough ice could be lost from the Greenland and West Antarctic ice-sheets to raise sea levels by several metres. If most of the ice in the Himalayas were lost, food production in nations from the Indian sub-continent to China would be drastically reduced. These would be civilisation-disrupting changes, even if run-on heating was avoided.* (Spratt and Sutton, 2008, p. 130)

The indications from nature are that the opportunity window for the necessary restorative work is only a few decades at most.

For the work to achieve the stated objective within such uncompromising timeframe, a number of elements must be in place, which brings us to the dark side of the ‘mess’: the contradictions,

conflicts and shadow side(s) within the multi-layered human response to the ‘emergency’. Indeed, as the clamour grows, it is often to exhort *someone else or something else* to come up with and apply possible or plausible solutions. When asked, most people have a sense of one or two things getting in the way of action. There are in fact many reasons. Some people point to the self-serving actions of the oligarchs who apparently believe their enormous wealth can protect them; others point to prevarication, obfuscation, procrastination, self-blocking and political corruption as entrenched behaviours that may squander the little bit of time we appear to have. Yet others blame neo-conservative capitalism, institutional silos, consumerism, individualism, narcissism, paternalism, anthropocentrism or some combination of all of those, altogether leaving responsibility for consequential action to ‘others’, the ‘system’ or even to some transcendental force.

Nevertheless, pointing to the impending disaster and to the potential solutions at hand, standing up to be seen and heard, demanding action of those who can take it is critical. If it is indeed doable and affordable, as it appears to be, and if it is agreed that we must give this our best shot, the role of the human dynamics currently getting in the way of effective action must be examined, a key interest propelling the research I undertook. There are signs that finally, after many warnings, we have started to understand the consequences of being mentally and emotionally disconnected from our Earth and are starting to address – however tokenistically – the ‘mess’ we have made of our fragile planet.

Methodologically the process commenced with a deep heuristic inquiry, fathoming my own motivations, responses and optimism in an auto-ethnographic process, observing, recording assimilating and analysing while experiencing my own real-time decisions, choices and daily actions. The need to explore safe climate restoration potentials, barriers and scale-able options involved me into a process of interviewing a number of long-term climate activists. The subsequent synthesis of the resulting data resembled the weaving in of many threads to form a Big Picture tapestry of the weft and warp and the many threads of information, creating a multi-layered, non-linear representation illustrating both the complexity and the resistance to siloing elements of the predicaments we’re facing. Some threads relate to international climate governance, to national level climate (in)activity and others to individual and small group actions, all inextricably nested in the overall context of the existential threat to human survival the myriad dimensions of the climate emergency. The multi-faceted picture that came into focus demanded an analysis identifying many key influences and ingredients for comprehensive action summarised in *The Quilt* and its many patches explicated in the final chapter. I formed the thesis that all support the case for active hope and from there, tactical guides for action began to emerge, all the while acknowledging that the situation remains dire and merely holding knowledge doesn’t change that.

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## OVERVIEW OF CHAPTERS

### Chapter 1 A Personal Introduction and Positioning

This chapter takes the reader through the unfolding of my life and the nature of my barefoot research that began to flourish as I stepped out of the classroom and into life as a young adult. I show how my response to that era and the journey I took shaped me. My curiosity and creativity are expressed through the disclosing of my story and the choices I made, communicated through some of my art, my poetry and videos. I share the seeds of my motivation and intentions, why I believe mobilising people to accept, demand and work towards safe climate restoration is even possible, what drove me to do this research and to present it in the way I did.

### Chapter 2 The Mess and the Urgency

The context of the extreme urgency for the complex messiness of the climate emergency to be understood and acted upon is explained; I detail what's going on, how bad it is and why Australia's and the world's current responses and commitments will not be enough to get us out of trouble. The chapter explains and argues for the application of the *precautionary principle* and outlines the Climate Emergency Approach to address *the mess*, as advocated by groups in Melbourne and beyond.

### Chapter 3 Research Process and Methodological Reflections

I describe the ways in which this mixed methodology, that includes elements of autoethnography, heuristic inquiry, participatory research and a more traditional post positivist content analysis of interviews can illuminate the challenges of attending to global warming.

Looking at the broad context through observational approach and heuristic research, exploring my personal journey and lived experience through auto-ethnography go some way to explain the participatory paradigm this thesis predominantly sits within. Chapter Three goes further, fleshing out values and ethics and the reasons and methodologies behind the investigative paths I trod. It introduces the methods used to generate and then make sense of the data and explains why I decided on interviews, why and how I chose the ten interviewees (including the group interview in the US), and where it led. The transcripts are not included in the appendices due to their length, but they are available on request. Chapter 3 explains how the seven sets of questions (See Appendix 1), when synthesised with the interviews, threw up four clear categories.

1. *'Know Why'* reasons behind the moral, economic and intellectual imperatives to foster restorative living for ourselves and our society;
2. *'Know What'* mobilisers, practitioners and campaigners need to do to crank up People, Scale and Momentum;
3. Change knowledge, practices and actions; the *'Know How'* for practitioners and the new leadership coming through;
4. Timeframe of *'Know When'* – collating the meta strategies and breakthroughs aimed at restoring safe climate conditions for our species and biosphere.

#### **Chapter 4 What Must Be [Fully] Understood**

In Chapter Four I demonstrate how the aforementioned knowledge categories, Know Why, Know What, Know How and Know When, helped me analyse and explicate the findings. The process of analysing the data revealed a pervasive problem: the behaviour, action and prioritising undertaken provides a good indication of how well or poorly a threat is understood (Covid-19 is another case in point). Looking at our collective responses to our emerging understanding led to a key point of great clarity which was articulated with the adverb *Fully*. Whilst we may think we understand the problem and the urgency for action, our behaviour might indicate otherwise. Scrutiny and proactive work are required to bridge these gaps and overcome discrepancies between thinking, understanding and necessary action.

#### **Chapter 5 High Level 'How'**

This is where the way forward begins to take shape towards the telling of a new story that includes not just the outlining of the threat and urgency and promoting and advocating for all the solutions, but goes further to flag a Plan. This chapter dives into some specifics, some hurdles that need to be overcome, some attributes that need to be brought to the equation, whilst maintaining a rock-solid overview perspective at a comprehensive, multi-dimensional overarching level which is applicable at the global, national, local and personal spheres of influence.

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## **Chapter 6 Breakthrough and Mobilise**

Chapter Six takes the story to Paris at the time of the CoP21, tying this in with the interviews undertaken locally and overseas and the reason why it was necessary to go looking for ‘safe climate restoration’ conversations across the world. The global mass-mobilisation that ran alongside the Paris campaign events and the Paris Agreement that concluded the CoP signalled a worldwide shift in awareness and willingness to act. It also heralded a denouement for the heuristic and participatory research for this dissertation bringing into this chapter some of what we might expect in Australia.

## **Chapter 7 This Is What I Propose**

Knowing the details of the Mess and the *Urgency of What Must Be Fully Understood*, leads to an exploration of the implications, conclusions and some recommendations. Developing a sense of what’s needed to break through the impasse and of the next steps for you, me and our society helps explain how and why I have become less frenetic through this process. Facing what you’re up against and mapping a course of action that sits within a comprehensive plan is a big step towards addressing and hopefully solving any difficult problem.

I have sailed the course from unhelpful distress to beneficial eustress. Now, dear reader, as you turn these pages, I hope you will come to understand why - in the end - my optimism prevails and has new wind in its sails.

Let this journey begin. Climb aboard.