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Ecofeminist geragogy as emergent informal learning: insights from Nannagogy

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ABSTRACT

This paper reflects on the ecofeminist educational implications of research findings about Australia's Knitting Nannas' Against Gas and Greed (a.k.a. The Nannas') experiences of peer-to-peer, environmental activist learning. Aspects of this unique and successful suite of informal learning practices devised by the Nannas guided by their Nannafesto, and named as Nannagogy, are drawn on to explore the matter of informal ecofeminist education with older women. Drawing on a materialist ecofeminist perspective and learning from older women's activism in overcoming ageist sexism, we argue for the recognition of an emergent learning space we call 'ecofeminist geragogy'. As women age, and the matters of climate disruption and species extinction grow ever more severe, informal learning for transformation (or otherwise) emerges as space rich for research investigation.

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Introduction

Informal learning takes place outside the curricula of formal and non-formal, or community educational institutions and programmes. These processes of informal learning can be wholly contextual, novel, and emergent given this type of learning is not prescribed in any way and relies on the actions of motivated agents of learning who are usually people who care about a matter or matters. Informal learning may take place inside formal and non-formal educational institutions; but, by definition, informal learning is not part of the apparatus of education created by educational institutions, institutional authorities, or educators acting within education systems. According to Schugurensky's (2000, 5) typology, informal learning can be additive or transformative. Additive informal learning refers to 'the addition of knowledge, the improvement of skills and the further development of values that expand and strengthen existing knowledge, skills and values'. By contrast, transformative learning challenges previously held assumptions and values and serves to change people's outlooks, such as their thinking about social and environmental matters, and their frames of understanding complex interactions.

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Informal learning is a strategic educational mechanism among volunteer groups. Volunteer work is 'unpaid activity orientated to help others and improve society' (Schugurensky 2013, 3). In Australia, environmental protest and activism is overwhelmingly voluntary. Over two decades ago, Branagan and Boughton (2003) argued that activist movements are important sites of learning. People gain new knowledges and understandings through their involvement in social and environmental protests. Learning for (if not about) environmental activism is not sedimented within formal education curricula. Indeed, the opposite is nominally true. Environmental activism is punished by the state and its agencies (legitimate or otherwise) through legislation, regulation, lawsuits and imprisonment in countries like Australia, or even torture and death in nations with harsher governmental regimes. The politics and motivations for resistance is one reason why voluntary, informal environmental activist learning in all its iterations becomes such an interesting phenomenon to examine.

In this paper, we reflect on the ecofeminist educational implications of research conducted with the successful, Australian, wholly volunteer, activist group known as the Knitting Nannas Against Gas and Greed (KNAG) whom we call The Nannas. For high visibility and recognition, The Nannas dress in vivid yellow, teamed with red and black for contrast. They adhere to a code of non-violent peaceful protest. They are known for taking the traditional women's domestic rites of sitting, knitting, crafting, chatting and drinking tea outside to conduct their activism in public. They picket the offices of politicians. They encircle mother trees whose lives need saving, with love and comfort. They knot themselves to gates that should not be opened to coal seam gas trucks. They rally in the centre of cities, in faraway forests, and online using popular social media sites. The Nannas share similar concerns and tactics with other older women's groups equally concerned with carbon extraction and environmental protection such as the North American Raging Grannies (described by Chazan and Baldwin 2019) whose actions included chaining themselves to rocking chairs locked across train tracks in a 'rocker lockdown' (Chazan and Baldwin 2019, 251).

The Australian Knitting Nannas success is built on their collective capacities for informal and incidental learning (see Ollis 2020). The Nannas humorously call themselves 'a disorganisation' as there is no formal 'organisation' or coordinating office prescribing their protests or the learning that undertaking effective protest requires. Their only identifiable structures are socially networked geographical groups known as 'loops', and their maintenance of websites and use of social media sites. The Nannas rely on a series of inventive strategies to self-organize their agentic and uniquely identifiable, and principled environmental activism (Larri and Whitehouse 2019), including recently taking legal action in the New South Wales Supreme Court against state sanctioned, climate anti-protest laws.

In the case of *Kvelde v State of New South Wales* [2023] NSWSC 1560 (NSW Caselaw 2023) two Nannas worked with Environmental Defender's Office to act as plaintiffs in the New South Wales Supreme Court. Nanna Helen Kvelde and Nanna Dominique Jacobs took legal action to defend their right (and the rights of others) to protest in October 2022, after the NSW Government passed restrictive new laws following climate demonstrations that caused inconvenience to traffic flow in the city of Sydney. In what was seen as a partial victory, the Court acknowledged a constitutional right to protest, but upheld changes to the road rules, in brief, making it an offence for activists to delay or stop traffic. Nanna Helen is quoted as saying,

We are happy the court has given some acknowledgement to the democratic right to protest but these laws to me feel like a distraction. As if [political parties] are trying to get the population angry with protesters instead of angry against politicians for failing to protect us from climate emergency (Environmental Defenders Office [2023](#)).

Methodology and context

There is no one method associated with feminist research (Breunig and Russell [2020](#)) and ‘applying feminist theory and research methods in many areas of education research is not new’ (Hart and Gough [2020](#), 51). For this paper, we use document data retrieved from relevant websites and social media sites and original survey and interview data collected by Lorraine Larri ([2021](#)) for her doctoral research study. This research was approved by the Human Research Ethics Committee, James Cook University (approval number H6886). In the time-honoured tradition of re-analysing a qualitative and quantitative data set to further excavate research findings, we examine these data through a materialist ecofeminist lens (Gough and Whitehouse [2020](#), MacGregor [2022](#)) to concentrate on the matter of older women’s informal activist learning and how older women can and do act most publicly in the face of ageist sexism. As women age, and the matters of climate disruption and species extinction grow ever more severe, informal learning agitating for societal transformation emerges as space rich for research investigation.

We address one gap (among many) identified by Formosa ([2021](#), 179) who argues that educational research has tended to pay ‘scant attention’ to older women’s experiences as learners, and that ‘feminist educators and gerontologists alike have overlooked the question of older adult learning’. Formosa is critical of how education researchers have construed practices of life-long learning in a gendered way – he calls this ‘malestreaming’ – that result in a potentially limited understanding of older women’s learning. Formosa’s argument is that women’s learning must be understood and valued in its own right ‘within a broader social context that encompasses the social determinants of gender roles and norms’ (Formosa [2021](#)). Of particular importance is paying attention to the circularities of power and how knowledge is created and disseminated – or flows – by and among women who are of an age to have fully experienced oppression because of their gender, and may be experiencing a sense of marginalization and obsolescence due to their age. The category ‘older women’ does not indicate the diversity of women, however, not too many women categorized as ‘older’ would have escaped overt or subtle experiences with sexism during their lives.

As described by Gough and Whitehouse ([2019](#), 2), ‘ecofeminism is a system of thinking that explicitly draws attention to deep social, economic, and political structures resulting in the parallel domination of the human over the non-human with male domination over women’. The Nannas have playfully fashioned their whole movement around a determined self-awareness of how older women are situated within gendered social constructs and how they, The Nannas, can play on and against these constructs to recreate themselves as activists who cannot be ignored. This tactic has been named as strategic essentialism and it is not unusual for groups of women activists to deploy this tactic for political reasons (Chazan and Baldwin [2016](#); Chazan and Kittmer [2016](#)). McHugh ([2007](#), 35) defines such an approach as an ‘oppositional discourse in which women assume the characteristics assigned to them by a phallogentric culture in order to challenge phallogentrism and its description of and prescription for women’. For The Nannas, this means crafting

dissent against neoliberalist, corporate-led, environmental destruction. The Nannas started in 2012, in the coal seam gas (CSG) fields of northern New South Wales. They protest for the future and ‘for the kiddies’.

The women who contributed to survey and interview data ranged in age from 45 to 84, with most respondents (88%) reporting their age at the time as being between 50 and 74. As an increasing demographic in Australia, older women are categorized as young-old (65–74), old-old (75–84), and oldest old (85 and beyond) (APA Dictionary of Psychology [n.d.](#)). Nannas from 23 loops participated in data collection, with the majority located along the eastern seaboard of Australia, coinciding with the sites of coal seam gas (CSG) extraction, where most reserves are in the Surat Basin (Queensland) and Bowen Basin (Northern Rivers Region, New South Wales). Twenty-five percent of survey respondents were originators of loops, the rest had joined existing loops. Only one woman identified as Aboriginal, 26% were born overseas and 80% of respondents held post-secondary qualifications. Almost half held diplomas, degrees, or graduate diplomas and eight had obtained post-graduate qualifications. These data show The Nannas adeptly adapted their formal learning capabilities to informal learning. And, by increasing their individual and collective political and ecological knowledge, they find sustained motivation for collective action. This is important, as Nanna Jeannette explained that within The Knitting Nannas:

There is no structure and no hierarchy, there’s no membership, there are no elections ... we come together and do stuff and then we go off and do our own thing. We choose to keep coming together, choose to keep actions rolling because we want to, not because we have to. I really like that. I think it suits our age group, too, because sometimes you get tired, more than we did when we were younger ... It works well even though it’s so unstructured and intentionally disorganised ... It’s never chaotic, it’s always cooperative.

We use a material ecofeminist researcher standpoint to re/examine data for this paper, though as MacGregor (2022, 47) points out, this term may imply a tautology as ecofeminist theory has always been grounded in materiality, and ‘even a cursory search through the intellectual history of twentieth-century feminism will throw up the fact that “the everyday”, “material practices” ... have occupied a central place’ in ecofeminist thought. In our learning from older women’s activism, and in considering what they were willing to disclose of the history of their movement, we apply insights from the peer-to-peer informal learning practices we named as Nannagogy, to an emergent learning space we call ecofeminist geragogy.

Geragogy is also known as gerogogy and educational gerontology (de Lima Flauzino et al. 2022, Formosa 2012, Fragoso and Fonseca 2022). The field of older adult formal and informal learning has developed in ‘unprecedented and unparalleled ways in the past five decades’ (Formosa 2023, 91). The extent to which later in life learning life requires a distinctive geragogical theory separate from pedagogical and andragogical principles is still a subject of scholarly debate. Realistically, the formulation of geragogy diverges from children and younger adult learning theories due to the sheer accumulation of life experiences of much older adults. The benefits of active learning in older age are increased cognitive functioning, increased emotional and psychological support, increased social capital, greater feelings of social inclusion, and, importantly for older women, greater feelings of empowerment. As Formosa (2023, 99) notes, later life represents a ‘liberation’ phase as older adults can ‘experiment, innovate and skirt around social conventions to explore new paths to creativity’. Such liberations include ‘improving mutual knowledge

between generations, combatting myths and prejudice and deconstructing age-based stereotypes' (Formosa 2023).

As Holland, Price, and Westermeyer (2018, 270) point out, womens' activist movements are 'potential engines of change, disruptive to interests vested in the status quo and potentially the source of new imaginaries'. Many aspects of the learning practices innovated by The Nannas inspired our exploration of informal ecofeminist education. We do not seek to justify Nannagogy as ecofeminist pedagogy. Rather we use the educative work of the Nannas to consider the matters of ecofeminism and education within informal learning situations when the activists are principled older women. In the next sections of this paper, we attempt to 'join the dots' (von Kotze and Walters 2023, 17) to discuss the 'Nannafesto' (the Nanna manifesto) and analyse inherent ecofeminist perspectives within what The Nannas refer to as their 'Nannalution' (the Nanna revolution). We consider how the actions of the Nannas draw attention to matters of age and gender within the politics of environmental activism. We describe some inherent ecofeminist dimensions of the informal learning processes wholistically named as Nannagogy (see Larri 2021; Larri 2022; Larri and Whitehouse 2019). We define our researched definition of ecofeminist geragogy to consider matters of education practice and suggest ways in which the dynamics of age, gender and environmental concern can be brought to further critical attention. All Nanna names are pseudonyms except where fully identified by first and last names.

What matters to the Knitting Nannas? The Nannafesto.

The first question of a material ecofeminist analysis is to ask, what matters? And why? Climate disruption matters to the Knitting Nannas. The integrity of Country matters to the Knitting Nannas. (The capitalization of Country indicates respect to the First Peoples of the continent of Australia.) In their published Nannafesto –another entertaining play on words – the Knitting Nannas state that their purpose is to voluntarily and 'peacefully and productively protest against the destruction of our land, air, and water by corporations and/or individuals who seek profit and personal gain from the short-sighted and greedy plunder of our natural resources' (The Knitting Nannas 2024a). The origins of the Nannafesto were collective, as Nanna Joy explained:

We would just sit around in a circle and knit and come up with these amazing ideas. And we just bounced off each other. It was us talking amongst us ourselves ... we had lots of fun playing with the word Nanna. I think it was quite early ... I came up with using the word Nannafesto because it fits.

One aim of their activism is to 'bring attention to the issues surrounding unsustainable resource exploitation' (The Knitting Nannas 2024a). Another aim is to demonstrate to, 'the people, the media, the politicians, and the exploiters just how far from radical the "extremists" who oppose their practices are'. As engaged, older women learners, and as mothers, aunties, grandmothers, as well as activists and voters, The Nannas consciously set out a democratic agenda to ensure 'that our servants, the politicians, represent our democratic wishes and know they are accountable – to us' (ibid.,). For most research participants, the identity shift from caregivers, home makers, breadwinners, wives, partners, mothers, and grandmothers to necessary and unmissable environmental activists was a transformation they hadn't previously envisaged for themselves. Having made that shift, they focused on what is most important to them as an older women's activist

movement. The democracy of Nannadom became an emergent feature of their voluntary work. The Nannas make it clear they are not affiliated with any political party and that they prefer to 'annoy' all politicians 'equally'. Additionally, they use their status as visible and generally able-bodied, older women to represent people who cannot attend protests, such as 'the elderly, the infirm, people with young children and workers' (ibid.,).

The Nannafesto has a catchy title as the Nannas deploy wit and satire as a strategy to gain public attention. The use of humour does work to capture attention in the public sphere (Branagan 2007) and a sense of playfulness is motivating in encouraging learning (Wlodkowski and Ginsberg 2017). Engaging in humour can be a rational response to women's rage at known injustices (Curnow et al. 2021) and humour enlivens spirits in difficult situations such as in environmental protests when emotions run high (Roy 2007). There is growing research attention to the use of humour in different forms of feminist environmental learning (Russell, Chandler, and Dillon 2023). Using humour is a strategy to undo a historically pernicious yet lingering opinion from a male-dominated society that women have no sense of humour (Gough and Horacek 2023). The Nannas, of course, consciously disrupt any thinking that older women cannot be clever, witty and wise. In addition to creating the Nannafesto and celebrating the Nannalution, the Nannas enjoy mischievous sheNannagans; characterize becoming their activist identities as Nannafying; hold Nannual conferences in regional towns; joke about having Nannapause heated moments; and during the pandemic used the hashtag #isoNannas to promote online activities. Humour, as Nanna Joy explained 'attracts people in and then they will listen to you'. However, Nanna humour must never be mistaken for a lack of serious intent.

The Nannafesto enables individual and loops to establish their boundaries. The Nannafesto is consulted and interpreted whenever Nannas are planning actions. Nanna Anne, who was the originator of one Queensland Loop in 2014, explained that 'adhering to the Nannafesto is fundamental. People who come and don't fit in, who don't want to cooperate with the Nannafesto [leave], that's the only rule'. Nanna Evelyn said it, 'helps to keep people on track'. Nanna Jeanette described the effect of consulting the Nannafesto when they have meetings as 'really valuable' in that it 'brings us to a focal point and then we continue with our meeting. It's nice to keep it fresh in our minds'. If there is any lack of agreement in decision-making, Nanna Jessie said the Nannafesto is often used as the arbiter, in that 'if we find ourselves having trouble coming to how to deal with a particular issue, we do particularly look back at the Nannafesto and say this will be a valid approach'.

The Nannafesto acts to inspire women. Nanna Amy considered that she became more motivated to be vocal in raising awareness of environmental destruction caused by mining companies, saying 'it inspires me to continue standing up and speaking out about the environmental destruction by mining – in particular coal seam gas mining – and about [opposing] corruption'. Nanna Louise, who learned non-violent direct action (NVDA) strategies when she became a Nanna, considers the Nannafesto 'as a great document for NVDA and for living your life'. The Nannafesto begins with a recognition of First Peoples and of the fact the land, in whose interests they act, 'was and always will be Aboriginal land'. The Nannas 'want to leave this land no worse than we found it, for our children and grandchildren ... [who] deserve to have a future with a clean and healthy environment, natural beauty, and biodiversity' (The Knitting Nannas 2024a). And, as the Nannas dryly remark, 'don't we have our work cut out for us!' (ibid).

The Knitting Nannas are remarkably clear in their opposition to the extractive industries that dominate the current workings of neoliberalist economics and politics in Australia. This opposition indicates their subversive non-radicalism. The Nannas' political position is that the true radicals in Australia are the extractivist corporations and their supportive politicians in local state and Federal government who act against the interests of Australian children, grandchildren, and the non-human world. The Nannas resist against those organizations and authorities in power who continue to plunder this beautiful Country, and who accelerate destruction even as the bitter effects of global heating distresses communities all over the nation. The Nannas originated in the coal seam gas fields of northern New South Wales near the town of Lismore. The community of Lismore and its region regularly encounter ever damaging bushfires and in early 2022, was devastated by a massive climate fuelled flood. Recovery remains slow while people struggle to relocate away from now flood prone land. Predominantly in regional areas, there are over 40 loops across Australia.

A core premise of ecofeminism is the inseparable connection between extractive capitalism, patriarchy, and ecological breakdown (Walters and von Kotze 2021). In their worry about the lives of children and grandchildren; their care of the preservation of biodiversity; and in their habits of knitting and crafting, the Nannas play both against and with the traditional tropes of patriarchy and the calibrated positionality of ageing women-hood to bring attention to ecological destruction and the consequent need to protest. In their own words, Nannas 'sit, knit, plot, have a yarn and a cuppa, and bear witness to the war against the greedy, short-sighted corporations that are trying to rape our land and divide our communities' (The Knitting Nannas 2024a).

Ecofeminist concerns lie with analysing differentials of power and freedom within the human and more-than-human world. Warren (2000, 1) wrote that ecological feminists, understand 'there are important connections between the unjustified dominations of women, people of colour, children, and the poor and the unjustified domination of nature'. (We don't personally use the term 'nature' as is this difficult to empirically define given all the entanglements of living matter, however, we know what she means.) Ecofeminist analyses identify shared causes of oppression, dualisms, and hierarchies, that manifest as overarching systems of oppression (Kemmerer 2013). These power differentials have real and deleterious material effects, such as material pollutions of the land, waters and air; the denial of women's freedom to act how they choose; and, in the case of ageing women, being regarded as even less than younger women due to the inevitable bodily effects of oxidative stress and gravity.

Ecofeminist analysis has always been political in examining how power relations shape the world and how the 'polity' of a human social world 'determines and controls how this social world is and has been historically constructed and organised' (Di Chiro 1987, 40). The Nannas have analysed and named who are the powerful (the mining corporations and their executive who reap in billions of dollars of annual profit through extractive industries); how this power is wielded (against the environment, against the protectors/protestors who are arrested, jailed, sued and fined for their actions against these corporations); and how this concentration of power can be resisted and rebalanced (by Nannas and their fellow protectors who are visible, unretiring, persistent and caring activists). While The Nannas as a whole group do not present themselves as ecofeminist, there are individuals who identified themselves to us as ecofeminists. The Nannas are not literally 'streetfighters', as Salleh (2017) said of the heroics of ecofeminists globally, but they do take their

fight to the sidewalks in a sit-down, have a cup of tea and a knit or knot kind of way. When Nannas turn up to protest, they mean business. One recent action focussed on raising public awareness to save Big Spotty, a giant spotted gum on the New South Wales south coast. On World Environment Day, 5 June 2023, this action garnered significant regional, national and international media coverage (see Brissenden 2023), generated radio interviews, and amplified the plight of Big Spotty across Facebook.

Nannagogy and informal learning practices

Informal activist learning strategies are what Ollis (2020) calls the ‘pedagogical turn’ when ‘activists learn both individually and collectively from one another’, often at the sites of protest, but also using social media and participation in group and community events (Larri 2022). The portmanteau ‘Nannagogy’ combines ‘Nanna’ (older woman) with the suffix ‘agogy’ (‘learning’ but literally from the Greek ‘I lead’) to conceive of ‘Nannagogy’ as an educational term for this suite of informal learning devised by the Nannas to support and sustain themselves as later in life activists (Larri 2021; Larri and Whitehouse 2019). Nannagogy is an Australian community of practice (CoP) of informal learning leading to coherently and consistently recognisable activism. Nannagogy honours the wisdom and experience of older women who operate as an internally organized collective and who learn *in situ* before, during and after their voluntary protest work. We see Nannagogy as deliberative, situated learning and a practice of informal learning which combines the elements of cognition, metacognition and epistemic learning.

Cognitive or instrumental learning is the basis of activist skill development such as learning how to do non-violent direct action; learning the practices of the Nannalution, such as NannaCare and the techniques of guerrilla surveillance; learning the laws of protest (which differ between Australian states); learning one’s legal rights; and learning about the purposes for action such as understanding the science of CSG extraction (a horror story in itself), marsupial murder and the other depredations of capitalist extractivism which the Nannas come to know. It is not ‘required’ (in Nanna Anne’s term) that a Nanna must knit or craft, though crafting skills are a useful to the design of their protests. The only requirement is adherence to the Nannafesto and to the practices of NannaCare where the Knitting Nannas provide practical, common-sense support of other, often younger protestors, whom the Nannas call ‘protectors’, and ‘those protectors putting themselves in an arrestable situation at actions’ (The Knitting Nannas 2024b).

The original Lismore loop learned that the knit-in was conducive to group learning processes towards self-defining their older women’s way of protesting. Knitting, chatting and sharing knowledge is powerful learning. Women have traditionally come to know each other through activities such as crafting groups (Larri 2022), and The Nannas have repurposed crafting to empower themselves. As Nanna Joy explained:

You sit with women knitting-in, and you’ve got 300 years of experience. You’ve got graphic designers and nurses and managers and academics and people who have brought up children – all these incredible talents who are wasted making cups of tea and pushing petitions under people’s faces. This is one of the strong points of the Nannas, to find people’s strengths and to utilize those strengths within each loop and then within the larger movement. Some people are very good at organising. There are some people who are good with public speaking. We make a point of acknowledging each other as valuable members of society, not as kind of wrinkly invisible, useless drudges, drains on the public purse.

Crafting builds self-confidence as Nanna Evelyn described:

It's not just knitting, crochet, sewing [or] creating silly things. The craft business ... is a way of building confidence in yourself that you can do something ... self-confidence to be able to feel that you know [about] something ... I'm not much of a knitter but I do squares for the love wraps. You know, the energy that I put into that is going out there, right? And that's the thing when you're making things. You know you're doing something that is creative, it might be small but you're putting energy and love into it. And that, in return, gives you a satisfaction and confidence that you can contribute in whatever way is comfortable.

Metacognitive or interpretive learning is a practice of collaborative, critical reflection to reframe knowledge, reflect on lived experience and to challenge one's preconceived conceptions, constructs and paradigms. Learning how to be a Nanna, known as Nannafying, can mean a reframing of previously held beliefs. Not only of dropping an innocence born of ignorance in the face of learning about the depths of corporate corruption, but also in learning how to articulate a clear anti-racist stance. Of interest is how the Nannas embrace the sorry details of Australia's colonial history and directly apologize for how First Peoples were treated. We quote from *The Knitting Nannas* (2024c) here:

The Australian Knitting Nannas acknowledge that the land we are trying to save for the kiddies is our First Peoples' Country. We applaud their caretakership over the previous tens of thousands of years. We are so very sorry about the way the first European boat people treated you and Country. We pay our respects to your Elders, past and present, and pledge to do what we can to protect the Country of your future Elders. We ask to walk beside you when we all face the evil greed of politicians, mining companies and any other organisations or persons that want to pillage Country for their short-term financial gains.

Epistemic informal learning is where worldviews, values, social and political paradigms are reconceptualized by individuals and groups. Philosophical reasoning often underpins the determination to voluntarily work many hours to try to achieve the goals of systemic, social, cultural and environmental change. Philosophy motivates continued acts of resistance, and fuels the capacity to going in the first place, to keep turning up, to lock on, or take a state government to court. Informal epistemic learning is complex and messy. Sometimes, experiences of events combine serendipitously to shift a learner's worldview. Sometimes it doesn't happen. We see that ecofeminism can work at epistemic level with realization that 'women will not and cannot be freed from oppression and exploitation until overarching systems of oppression and exploitation are dismantled, systems that undergird all forms of oppression including, but not limited to sexism, anthropocentrism and speciesism' (Kemmerer 2013, 73). To this list we would add ageism and ageist sexism.

Sexism and ageism are examples of the negative effects of essentialising women's bodies as being (McHugh 2007). Ageist sexism is a double jeopardy for older women and can be encountered as frequently within activist movements as within any other life space (Jenkins 2015; Roy 2003, Roy 2007; Sawchuk 2009; Velásquez 2017). Older women do not take up activism 'in spite of their age' (Chazan and Baldwin 2019). Our Nannas were took up activism because resistance is needed to resolve the climate, biodiversity and pollution crises – a true polycrisis of matter and material within the Earth's biosphere. Age is no barrier to activism if action is chosen over transcendence (Formosa 2021). The Nannas (as grandmothers) are not alone in mobilizing cultural tropes of/for

older women to establish political traction. Many older women across the globe are deploying a similar tactic related to the cultural norms within their own countries (Chazan, Baldwin, and Evans 2018, Roy 2007). The highly visible and forthright Knitting Nannas, with 'their iron fist in a soft, fluffy yellow glove' (Larri 2020), consciously play with the strictures of gender and age.

In search of an informal ecofeminist geragogy

The United Nations Human Rights Council's *Analytical Study on the Promotion and Protection of the Rights of Older Persons in the Context of Climate Change (A/HRC/47/46)* (United Nations Human Rights Council 2021, 14) named Australia's Knitting Nannas as one example of how 'older persons are using their skills, knowledge, experience, resources, and resilience to help stop climate change and address its worst impacts for the benefit of us all' (Bachelet 2021, 5). Older women bring their wisdom to environmental activism, philosophy and politics. Women's life experiences, knowledge of traditional practices, and historical insights enrich all discussions of sustainability, intergenerational justice, and community resilience.

Older adults inhabit a physical, psychic and social realm that to some extent is different from middle-aged adults (Findsen and Formosa 2011). Geragogy is an educational construct that positions older adults as sufficiently different as learners to warrant a separate educational theory (Formosa 2021, 2023). Within formal educational settings, geragogy refers to the theory and practice of educating older adults by tailoring to their learning needs, abilities and preferences. Glendenning (1993, 15) defined geragogy as,

those practices and issues that are relevant to teaching and learning in relation to older people; memory, cognitive development, coping with transition in later life, teaching theory and method, learning theory, realization of full developmental potential and a philosophy which underpins the whole conceptualization, as being controlled by the person concerned.

A key principle of geragogy is the recognition that, as people age, their motivations, accumulated life experiences and cognitive abilities may differ or diverge from those of younger learners.

Theoretically, geragogy emphasizes a learner-centred approach, active learner participation, and respect for the individual's particular experiences, wisdom and expertise. Such features can equally be applied to informal learning as to formal learning and community learning situations. In crafting their Nannalution, the Nannas acquire new knowledge and new skills in concert with applying their existing expertise. Participating in actions, forums, groups, loop and Nannal meetings, the Nanna networks (however 'disorganised') provides multiple opportunities for informal learning. The Nannas make good use of social media sites such as Facebook and Messenger – helpful for when 'knees are creaky'. These are accessible sites for co-creating and sharing knowledge, as well as planning and organizing actions.

Later in life learning leads older people to greater personal control and autonomy (Creech and Hallam 2015). Older-adult learning enable people to challenge the oppressive and discriminatory conditions of old age and sexism (Formosa 2023). Recognizing ageist sexism is a first step to fully challenging the gendered norms of ageing. A learner focussed geragogy unsettles assumptions of older learners' dependence and

later in life learning is an opportunity to further develop cognitive, metacognitive and epistemic learning. A socially critical geragogy challenges beliefs, practices and structures related to ageing (Fragoso and Fonseca 2022); supports older learners in overcoming social alienation; and, most powerfully, enables older learners to develop their own sense of agency (Brookfield 2013; Creech and Hallam 2015). The Nannas show us that a proposed ecofeminist geragogy could include explorations of gender, environment, caring for the future, explorations of personal freedom and the assertion of political rights to protest. And when learning is conducted *in situ* and across social media platforms then the practical shape of an informal ecofeminist geragogy emerges.

From a scholarly perspective, an informal ecofeminist geragogy will have the characteristics of intersectionality – connecting with life experiences, rewarding an ethics of care and co-recognizing wisdom. Ecofeminist scholarship has long illuminated the intersectionality and interconnectedness of malicious forms of oppression, including gender, age, race, class and environmental degradation. Ecofeminist activism reacts to the oppression of women, environmental degradation, biodiversity loss and climate disruption. Ecofeminist adult learning involves better understanding these connections and learning to engage in activities that promote environmental sustainability, gender equality, and social and climate justice (von Kotze and Walters 2023). Older women can experience intersecting forms of discrimination and marginalization impacting their access to resources, healthcare and environmental justice. This means that an ecofeminist geragogy cannot ignore questions of vulnerability and resilience, as these too are gendered. It has long been identified that women and their children are disproportionately affected by the impacts of climate-fueled perils such as food shortages, droughts, floods, heat-waves and bushfires (Turquet et al. 2023, United Nations Environment Programme 2011). The gendered social inequalities of the very young and the older aged tend to be magnified in the face of such events, especially when people are displaced from their homes.

The Knitting Nannas demonstrate how resilience, adaptive capacity and leadership can be mobilized to resist and resile. Climate resilience is defined as ‘the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate ... and taking steps to better cope with these risks’ (Center for Climate and Energy Solutions 2019). The volunteer work of The Nannas is a form of resilience in the face of this well-known risk. They have many accomplishments, such as helping halt the expansion of coal seam gas extraction in New South Wales, legally reinforcing the right to protest and staying the execution of significant trees. However, there are always limits to resilience within any one group, and this is why the Nannas support younger generations of protectors and why NannaCare is an integral part of what they do. One of the main reasons that care is undervalued is that care was always ‘naturalised’ under patriarchy as being largely the work of women – certainly the social and environmental care work that is conducted as unpaid work (Breunig and Russell 2020). The accelerating climate crisis is in large part the result of extractive corporations exercising a type of power that places little or no value on the care of land, ocean, and atmospheric integrity in a relentless pursuit of monetary profit. From The Knitting Nannas point of view, caring becomes a ‘non-radical’ act.

The combined policy directions of the United Nations Decade on Ecosystem Restoration and Healthy Ageing (2020–2030) offer overlapping opportunities for nations to

embrace older citizens' right to quality learning later in life, seeking ways to build capacity in local communities for ecological and economic sustainability. The Nannas are one example of how a geographically dispersed group of women crafted themselves into existence. As Nanna Joy pointed out, 'when you get women sitting together with busy hands they come up with the most brilliant ideas'. The Nanna word play establishes and maintains their unique identity as powerful practitioners of activism and demonstrates the potential and power of using humour in feminist activist learning generally and ecofeminist geragogy specifically. As Nannadom is a cooperative enterprise, they can draw on one another's strengths and continually learn from one another. In taking time to critically reflect as they 'sit, knit, and plot', they have built an identifiable informal learning system that can be analysed as ecofeminist in character. Women all over the globe are proving that what matters is not age, but activism to protect that which is dearly held. The Australian Knitting Nannas Against Gas and Greed have crafted their special niche in a galaxy of environmental activist organizations and are truly admired for their bravery and courage. We give Nanna Elsie the last word:

Who argues with a Nanna? It's just so brilliant! It's so clever ... you could be 80 years old and bedridden, and you can still be a Knitting Nanna because you can still go online and do stuff. So, you don't have to be out in the streets ... and you don't have to knit. But I am a Nanna. I like the freedom of the Nannas. If you follow the Nannafesto, you can't do anything wrong.

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