Indigenous knowledges. A review of the book Plants Past, Present and Future[1]

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The book Plants Past, Present and Future is an important thought-provoking book.

- It critiques the nature of the acceptable knowledge about Aboriginal people.
- It's food Chapters look solely at the significant part Aboriginal women play in providing food for their families.
- It describes the inequities of benefit accruing to Aboriginal peoples, and knowledge extraction in the bush food industry.
- It argues that much of what it points to derives from Australia's colonial racist past and its continuance today.

Personal Perspectives

Zena Cumpston looks critically at acceptable knowledge in which Aboriginal knowledge is undervalued.

Cumpston writes:

> Indigenous knowledge is often perceived as lesser. It is continuously burdened with the baggage of having to be 'proven' against the assumed benchmark of non-Indigenous science.[2]
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> The core aspects of scientific practice (the 'scientific method') are observation, experimentation and analysis as well as the ability to reliably replicate both the tests and their results. When we look at the many examples of plant food preparation across the continent, do we not see these elements in practice? Does it not reflect science to know how to convert an otherwise poisonous substance, often through distinct processes, into something that has high nutritional value?[3]
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> Botanists and naturalists were essential in the colonising project, and as such their narratives have shaped the dominant perception of this continent's pre- and post-colonial history. They were the 'men of science' charged with 'discovering' the plants that would give the overtaken lands their all-important (Western) economic foundation.[4]
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> Curiously, these early botanists and naturalists are still credited with the discovery of species, completely erasing many millions of Indigenous people's expert knowledge, custodianship, stewardship and innovation related to plants.[5]
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> Indigenous peoples around the country are continuing plant knowledge practices within their communities, working to reinvigorate knowledge that has been impeded by the pressures of colonisation. The challenge is ensuring that Indigenous and non-Indigenous people find

[1] Cumpston, Zena, Personal Perspectives, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022
[2] Cumpston … Personal Perspectives p.34
[3] Cumpston … Personal Perspectives p. 35
[4] Cumpston … Personal Perspectives p. 36
[5] Cumpston … Personal Perspectives p. 37

> ways of working together that ensure mutual respect and benefit sharing. We are finding ways to tell a collective truth, to dispel many of the damaging myths that continue to cause harm today.[6]

Bolin Bolin

Michael-Shawn Fletcher takes on scientific knowledge on its own grounds.

> My work (since) has focused on building the expertise and data to form an evidence base that helps substantiate the knowledge of our people on this continent. Data speaks to power in Western systems and I aim to bring irrefutable data to stonewall objections to our knowledge. My lens is plants and they have power. Power to rectify the wrongs committed to my people. Power to transform how we live on this continent.[7]

In his Chapter on the Bolin Bolin Billabong, he tackles the view that Indigenous people did not actively shape their environments. He describes how sediment in the billabong collected with a core extractor, a scientific tool, confirms that the Wiradjuri whose Country includes the billabong actively re-shaped the land around the billabong to suit them.

Abundance

Here Cumpston describes Aboriginal foodways captured in a photograph by Frederic Bonney in 1876 of an Aboriginal family seated outside their shelter.

Grindstone

One of the women looks like she is making something on a grindstone. A grindstone discovered at Madjedbebe on Mirarr Country in Arnhem Land has been dated to 65,000 years ago. They are used to grind a range of plant seeds – native millet, purslane, the seeds of various wattles, acacias, saltbushes, flax plants and grasses. 'Grindstones', Cumpston writes, 'are extremely important technology… allowing diverse groups to exploit and greatly benefit for their available resources. The development of grindstones has allowed us to make nutrient-rich pastes, and breads or dampers.[8] In the photograph is what looks like a kangaroo skin bag that could have been used for storage of seeds. 'Effective modes of storage for seeds, water, and other food have been essential in our capacity to survive and to thrive'.[9] As important markers of our history of skill and innovation', she writes, 'grindstones are another aspect of our cultures that needs further illumination.'[10]

Coolamon

There is a coolamon on the ground in front of the group. Coolamons are carrying objects made from the barks of trees. 'All over Country, markings on trees can be seen where our people have arrived at places to collected and extracted a coolamon from a suitable tree to do so.'[11] They vary in shape and size from scoops for digging to larger ones for holding food. They are made using a variety of tools - adzes, axes, and rasps. Fire is used to harden the wood. The one in the picture looks like it is holding seeds. 'As women across diverse Aboriginal communities were

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[6] Cumpston … Personal Perspectives pp. 48-49

[7] Fletcher, Michael-Shawn, Personal Perspectives, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 p. 21

[8] Cumpston … Abundance p.77

[9] Cumpston … Abundancep.79

[10] Cumpston … Abundance p.79

[11] Cumpston … Abundance pp.80-81

responsible for gathering the majority of the foods eaten in families and communities, the coolamon was an essential part of any woman's toolkit.'[12]

Digging stick
A large digging stick is shown. They are made from saplings. One end resembles a shovel the other is pointed. Digging for food aerated the soil.

> For example, in digging up tubers such as murnong, the digging stick would act to till and aerate the soil. The tilling allowed the ashes from cultural fire regimes to provide nutrients for the growing murnong, with aeration of the soil also important for soil and crop health.[13]
>
> Used to nurture Country, to physical and spiritually connect with it to secure its bounty, digging sticks are also symbols to the centrality of women in food procurement…[14]

Nets
These were made from cumbunji (See below), spiny flat-sedge or native hollyhock. They were used to catch fish and birds.[15]

'As Bonney's photograph illustrates', Cumpston writes, 'plants have long played a crucial role in every aspect of the lives and culture of Aboriginal and Torres Strait Islander peoples. We have used plants as highly nutritious foods, for powerful medicines and in developing a huge range of technologies for hunting, trapping, gathering, storing, preserving and processing, for creating shelter and for travel in the form of bark canoes'.[16]

Cumbunji

Cumbunji, *Typhas*, is the common bulrush found in wetlands, lakes, and in urban areas. The rhizome (root) can be processed producing flour with carbohydrate and protein levels comparable with corn, rice, and wheat. The root fibres are turned into string bags and fishing nets and for catching ducks. It can produce up to7000 kilograms of rhizomes per hectare, up to 25% of which is carbohydrate. 'If the Anthropocene,' Head writes, 'is characterised by volatile, unpredictable and rapid change, what does that mean for the relative certainty and seasonal rhythm of agriculture. … could Typhus be a famine food for such conditions?'[17]

Yams

Dioscorea transversa is commonly eaten without any preparation, or after light roasting', writes Head, 'most accounts of this species are that it is sweet and very pleasant tasting, and juicy and highly sought after. *Dioscorea hastifolia* is similar. *Dioscorea bulbifera*, on the other hand, requires extensive processing to leach out the bitter compounds before it can be eaten'.[18]

Yams may be as much as 1.5 metres underground. They are strong evidence of farming practice.

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[12] Cumpston … Abundance p.81
[13] Cumpston … Abundance p.95
[14] Cumpston … Abundance p.95
[15] Cumpston … Abundance p.83
[16] Cumpston … Abundance p.97
[17] Head, Lesley, Cumbunji, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 p. 111
[18] Head, Yams. Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 p.123

> On every occasion where it could be retrieved, the top of the yam was broken off and put back into the recently dug hole so the yam could regrow. On some occasions a few handful of dirt were also thrown in on top; however, the hole was never fully filled in.[19]

The 'warran' or yam grounds described by (Thomas) Grey in his 1837 – 1839 journals,' Head writes,' were so extensive that they occupied large portions of the alluvial terraces along the stream on the coastal plain, and even impeded movement.'[20]

Quandong

'There are many records,' write Cumpston and Head 'of Aboriginal groups harvesting quandong fruits in large quantities and processing them for later use. Processing included drying, pounding and rolling them into little balls'.[21]

> In many places quandong trees appear to grow in groves, providing evidence that the Aboriginal people in a range of landscapes had learned to successfully propagate them and plant them to make them viable en masse. Their deep knowledge of their Country and the quandong tree enabled them to make this important food source both available and abundant.[22]

An analysis of 1327 grinding implements found 24 specialised for cracking quandong kernels.[23]

Respecting knowledge

Cumpston here confronts the use of Aboriginal knowledge in the bush food industry, and the inequitable returns to Aboriginal peoples. 'The recognition and protection of our knowledge,' she writes, 'especially our knowledge of plants and traditional foods, is a pressing problem on a number of fronts'.[24]

> Where in this 'bush tucker' story do we foreground the recognition of our longstanding cultural practices, central to the development of scientific understanding and utilisation of our plants? Where do we tell the truth about the breadth and depth of the skills and innovation that have allowed us to work with Country and our plants in a sustainable way, ensuring everything we needed to be healthy and fulfilled over many millennia?[25]

She is critical of bush food being used as an accompaniment only. 'This,' she writes, 'perpetuates the idea that our fruits, vegetables, seeds and grains cannot form a whole diet. These ideas are a lie, and slowly non-Indigenous scientific testing is showing what we have always known: the plants of our Country are highly nutritionally valuable and are a perfect inclusion diet to ensure health and vitality.[26]

At present (2022) only around one percent of the produce and the profits are generated by Aboriginal and Torres Strait Islander peoples and communities.

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[19] Head ... Yams p.118
[20] Head ... Yams p. 24
[21] Cumpston and Head, Quandong, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 p.152
[22] Cumpston and Head ... Quandong p. 151
[23] Cumpston and Head ... Quandong p. 156
[24] Cumpston, Zena, Respecting knowledge, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 p.161
[25] Cumpston ... Knowledge p. 161
[26] Cumpston ... Knowledge p. 162

> However, the disparity between what we need (economic empowerment) and what we get (celebration of our traditional, respect for our people's knowledge and recognition of our land management practices) goes to the core of the many problems faced by Australia's First People highlighting the pressing need for greater self-determination.[27]

There has been limited recognition of the ICP rights of Aboriginal people. Without full recognition:

> Our knowledge will continue to be appropriated and co-opted, denying our communities opportunities to participate in the market and denying future generations their rightful place within this economy, as well as their custodial rights to use and to benefit from the knowledge of their people, their inheritance.[28]

Futures

> Australia's Indigenous plants offer a magnificent portal through which all Australians can learn of the rich knowledge and complex land management systems of Aboriginal and Torres Strait Islander peoples.
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> Many of our failures in effecting this meaningful connection come from an inability to engage whole-heartedly in necessary truth telling.
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> The blindness of modern Australia is one born from a wilful ignorance that stems from our racist past and present.[29]

[27] Cumpston … Knowledge p. 163

[28] Cumpston … Knowledge p. 167

[29] Compston, Zena and Fletcher, Michael-Shawn, Futures, Cumpston, Zena, Fletcher Michael-Shawn, & Head Lesley, Plants, Past, Present and Future, Thames & Hudson 2022 pp.173 - 177