

preface	13
---------	----

radical rewilding

Wild musings <i>changing perspectives on nature</i>	23
Call of the wild <i>naturalistic planting</i>	25
Wild at heart <i>exploring naturalistic planting</i>	33

where wild things are

It's a wild world <i>novel ecosystems</i>	41
Wild rumpus <i>spontaneous plant communities</i>	45
Misfits <i>spontaneous plants</i>	69
Odd squad <i>primary plants, matrix plants and scatter plants</i>	223

into the wild

Sowing in earnest <i>matrix planting</i>	231
Purple rain <i>plant mix I</i>	235
The cosmopolitan <i>plant mix II</i>	249
Show stoppers <i>plant recommendations</i>	265

go wild for a while	279
---------------------	-----

references	280
------------	-----

glossary	282
----------	-----

acknowledgements	285
------------------	-----



Preface

Outgrow showcases plant species that are found everywhere but rarely purposefully planted. It uses these species as a palette to explore the matrix style¹ - an informal naturalistic planting style that is informed by how plants occur and interact with one another but is designed for visual effect.

As explained by James Hitchmough and Nigel Dunnet, naturalistic planting or nature-like planting has three broad approaches. The first is 'habitat restoration landscape' - a restoration/conservation approach that works with re-creating native plant communities based on habitat and ecological baselines. The second is 'creative conservation landscape style' - a more flexible conservation-oriented approach. Here baselines are overlooked, however the use of native species is still important in the design of plant communities. Species selection is based on plant performance in similar settings as that of the site. These plantings are allowed to evolve over time through informed management. The third approach - 'anthropogenic landscape' also involves designing plant combinations that fit well into a site and require low maintenance. However, plant combinations in this case are not limited to native species. Species are selected for their fitness for the site and unlike the other two approaches, visual/ aesthetic appeal is an important selection criterion as well.²

Historically, naturalistic planting has evolved along a gradient of art vs science, based approaches. What ties them, is that they operate on or are inspired by notions of nature. Increased understanding of the science of ecology and changing philosophical views on nature have framed these approaches over time. The beginnings of naturalistic planting in Europe and North America, can be traced to the eighteenth and nineteenth centuries, when the perception of nature changed from that of wild, dangerous, meant for resource extraction to beautiful, sublime, meant for appreciation. Jan Woudstra gives a detailed explanation of the evolution of naturalistic planting over time in "The changing nature of ecology: a history of ecological planting (1800-1980)".³

As Woudstra explains, since its early onset, naturalistic planting has had both aesthetic and ecological leanings. Aesthetically oriented planting imitated nature or was "nature -like". Scientifically informed planting or ecological planting was based on plant origin, habitat, distribution - plant geography, and/ or plant structure and function - plant physiognomy. Ecological planting particularly the plant geographic approach was prevalent in Germany as early as the nineteenth century, in the design of botanical gardens. In other parts of Europe like the Netherlands and Great Britain, planting design at the time was more focused on the aesthetic or pictorial quality of nature and had little or no evidence of the application of ecological principles. In the United States, perception of nature in the nineteenth century, revolved around pristine untouched wilderness. Interaction with nature was perceived as an antidote to human ills. This was reflected

in the conservation movement prevalent around the time - that focused on protecting wilderness through nature reserves or parks.⁴

In the early twentieth century, as Woudstra elaborates, the plant geography and physiognomy approaches found traction in Germany and by the 1930s, these ideas became part of the political agenda garnering undertones of the superiority of native species and the idea of indigenous gardens.⁵ Similar ideas around nationalism were also reflected in approaches to planting in the United States. Several landscape architects strove to attain distinctive styles of planting based on preservation of native scenery to promote a more natural American landscape design aesthetic.⁶ In the 1920s in the Netherlands, heemparks brought the appeal of native plants, and there was an increase in the interest of their applications in gardens. Planting that was more science based also emerged during this time and in the 1930s the concept of phytogeographical planting was being applied to large scale parks. Planting in Great Britain during this time was still more aesthetically aligned and there were several new trends stemming from the artistic approach. Planting in Britain continued to support the use of exotics for uplifting the landscape. It was around 1939, that ideas around ecological planting particularly that of plant communities and the importance of natives started gaining popularity amongst some landscape architects.⁷

Toward the latter half of the twentieth century, naturalistic planting gained popularity as a response to the search for labor efficient planting in public spaces. Woudstra explains how both in Germany and the Netherlands during this time, concepts on ecology were extended to the planting design of parks and gardens or heemparks.⁸ These concepts also found acceptance in other large-scale projects like river valleys. In Britain during this time there was consensus amongst landscape architects on using ecological principles for planting design, however, ecological planting was believed to be more suitable for the countryside. In 1960s and 70s inspired by German, Dutch, and Swedish counterparts, many landscape professionals suggested extending ideas of ecological planting to urban settings for quality of life. By the 1970s many of these ideas were seen taking shape in the design of parks and other landscape schemes.⁹ Since the 1940s, ecological discourse was prevalent among landscape architects in the United States. In the 1960s, publications like *Silent Spring* and *Design with Nature*, were instrumental in recognizing ecology as indispensable to the fields of landscape architecture and regional planning. Ecological ideas found strong hold in large scale issues, however, innovations in planting design came increasingly from outside the field of landscape architecture. With advances in the science of ecological restoration, the 1970s saw several projects on landscape restoration. Ecological restoration brought with it the concept of baselines and pre-existing plant communities. Working with baselines for restoration is a popular approach even today.¹⁰

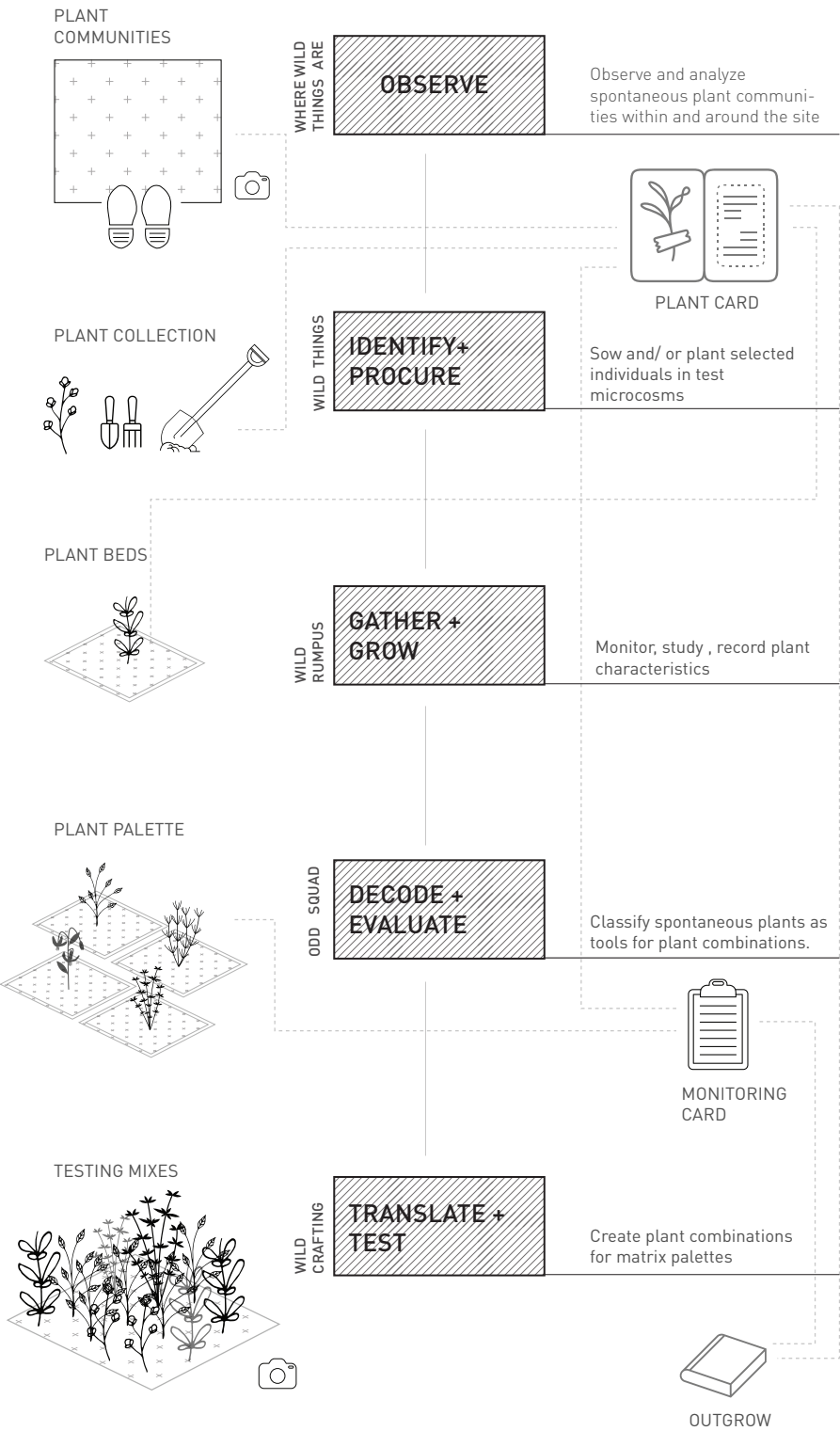
While scientifically inclined approaches seemed to dominate much of large-scale naturalistic planting in the nineteenth and twentieth

century, inclusive and expanding notions of nature gave rise to more artistically inclined approaches in the later decades of the twentieth century. Current approaches to naturalistic planting also fall under the gradient of two leanings, artistic and ecological. Over time, the science of ecology has moved from ideas of primeval and pristine, to ideas around rewilding, assisted migration, novel natures, and designed natures. Nuanced ideas around ecology continue to influence and blur boundaries between different approaches to naturalistic planting and as Noel Kingsbury admits, it is exceedingly difficult to categorize them. Kingsbury groups contemporary approaches to naturalistic planting into six positions. These are based on their inclination toward art/ science and their use of native/ non-native plants.¹¹ The positions defined by Kingsbury are as follows:

1. "Formality - form-based planting, involving precise plant placement, accompanied in many cases by clipping and training.
2. Mass planting - monocultural blocks of limited species that are resilient and adapt to changing environment.
3. Conventional informal planting - not intentionally based on natural plant communities; individuals or small groups are placed in positions, from which they are not generally expected to move.
4. Stylized nature - inspired by wild plant communities but designed for aesthetic/ visual effect. Planting done both as precise plant placement and random mixes.
5. Biotope planting—a plant community with all the dynamism of wild habitat and clearly resembling natural habitats in terms of its structure, but whose species mix is chosen for an aesthetic effect, as well as their ecological suitability for the conditions at the site.
6. Habitat restoration—where the aim is to create something as close as possible to a 'wild' habitat, at either a climax or relatively stable sub-climax community."¹²

Conventional Informal Planting and Stylized Nature lie in the mid spectrum of the balance between artistic vs ecological with the latter being regarded as the sounder (more ecological) balance. It is this gradient where we categorize the approach to planting of interest to us – The Matrix Style. Piet Oudolf's Matrix Planting is inspired and built from Richard Hansen and Freidrich Stahl's Lebensbereich Stylized Nature Approach - where plants are studied and grouped according to abiotic suitability, their ability to attract biodiversity as well as for a strong aesthetic appeal. While the plant selection is similar to some of the principles used by Hansen and Stahl, what is distinctive about the Matrix Style is that it is composed of intermingled plant varieties carefully curated to play with plant structure and color.¹³

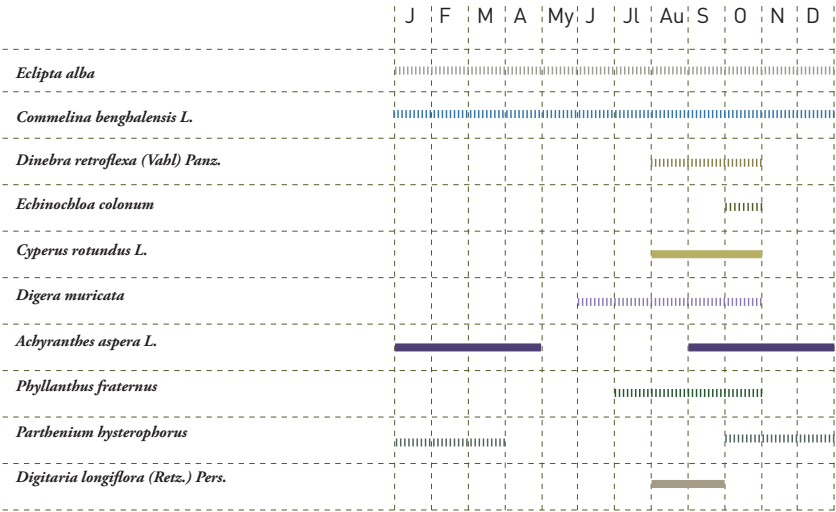
OUTGROW PROCESS













PLANT COMMUNITY I



BLOOM PERIOD



||||| annual ————— perennial ————— can act as annual and perennial

	<i>Eclipta alba</i>	04
	<i>Commelina benghalensis L.</i>	10
	<i>Dinebra retroflexa (Vahl) Panz.</i>	06
	<i>Echinochloa colonum</i>	16
	<i>Cyperus rotundus L.</i>	14
	<i>Digera muricata</i>	15
	<i>Achyranthes aspera L.</i>	09
	<i>Phyllanthus fraternus</i>	13
	<i>Parthenium hysterophorus</i>	11
	<i>Digitaria longiflora (Retz.) Pers.</i>	02



PRIMARY PLANTS

Digera muricata, *Achyranthes aspera L.*, *Parthenium hysterophorus*, *Panz.*, *Parthenium hysterophorus*, *Digitaria longiflora (Retz.) Pers.*, *Echinochloa colonum*



MATRIX PLANTS

Commelina benghalensis L., *Dinebra retroflexa (Vahl)*, *Cyperus rotundus L.*, *Phyllanthus fraternus*



***Eclipta alba* (L.) Hassk**

False Daisy, Trailing Eclipta, Bhringaraj

Herb

Bed 1



Top - Bottom : (1) Site image
(2) Macro image

Ecological Characteristics

Origin : native to Asia and now widely distributed in the tropical, subtropical and warm temperate regions

Habit & Habitat : annual, commonly seen in damp wastelands, low waterlogged areas

Light : part shade, shade

Temperature : heat sensitive

Soil : ranges from sandy to clayey soil

Soil pH : grows well in all pH soil types

Moisture : moist to wet conditions













Drought Tolerance : moderate tolerance

Wildlife value: potential food plant for *Amsacta moorei* -red hairy caterpillar

Notes : spreads in damp places and forms a mat of white flowers. Propogated by seeds and stem cuttings

Plant Characteristics

Height (m)	Spread (m)	Foliage Architecture	Bloom time Bloom colour	Structural interest	Longevity	Spreading ability	Persistence	Self sowing/ Seeding	Fruit type
0.30 m	0.30 m	Dark Green Branched	All year round White	12 Mon	Annual	High	High	Moderate	Seeds

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Bloom time + color												
Fruit time + color	