

replant



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Replant artist Winsome Jobling at Daly River, Image courtesy Peter Eve.

Replant : a new generation of botanical art

Replant is an excursion through the eyes of seven different artists into the remarkable world of plants in the tropical north of Australia. This exhibition of limited edition etchings and photographs explores the unique characteristics of species that survive and prosper through the climatic extremes of monsoonal rains, dry weather and wild fires.

The *Replant* Project Notes provide an introduction to the exhibition, background information and resources. Additional information can be found in the *Replant* exhibition catalogue and at www.nomadart.com.au.

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About the Exhibition

Replant is an exhibition about plants, people and environment of the 'Top End' of Australia. The exhibition focuses on cross cultural approaches to science, research and artistic expression and the process of collaboration.

Replant consists of 20 limited edition etchings and six photographs from the Northern Territory. Students will be introduced to the knowledge and observations of six artists from different cultural backgrounds, a photographer and an ethno-botanist. Plants are the primary focus of the works. The common subject of plant life provides a fascinating glimpse into the people and environment of the Top End of Australia.

The idea for *Replant* came about during a conversation with the Director of the Northern Territory Herbarium in 2003. Dr Greg Leach spoke about cross-cultural and interdisciplinary research being undertaken at the Herbarium and ideas for a project emerged. In January 2005 Nomad Art Productions sort funding for the project and in March 2006 a group of artists, a botanist, printmakers and a photographer gathered together in Darwin to begin the *Replant* project.

Their journey began at the Northern Territory Herbarium where botanists, Glenn Wightman and Dr Greg Leach explained the Western taxonomic system of research, which includes the collecting, describing and naming of plants. Glenn Wightman has spent 25 years in the Top End as an ethno biologist recording traditional biological knowledge with Aboriginal people from many different language groups (See About the NT Herbarium).

From the Herbarium the group travelled three hours southwest from Darwin to Naiyu community on the Daly River (see About Daly River). Naiyu is an Aboriginal community located next to the mighty Daly River. The community is surrounded by hills, spectacular wetlands and billabongs. There is an abundant supply of bush-tucker, including barramundi and the infamous crocodiles.

The first few days at Daly River were spent in the bush with traditional knowledge custodians; Biddy Lindsay, Patricia Marrfurra and Marita Sambono who shared their knowledge and observations as they led the artist group through the Daly River bush lands. The women shared information and stories as the group ambled along quiet tracks observing the natural wonder of the environment. It was nearing the end of the wet season and quietly exchanged words were masked by the rumble of thunder; umbrellas were circulated as rain cells passed over. Cultural stories, plant use and scientific knowledge were shared amongst the group. The artists then began to collect plants and make initial drawings. The research process was driven by the curiosity and creative exploration of the artists. Each drawing upon their cultural heritage, art practice and experience to filter new observations and information.

As the days went by the group of artists negotiated their way through the complex tropical world of trees, seeds, shrubs, creepers, palms and grasses. Cultural stories, plant use and scientific knowledge were then combined and drawings were transferred onto zinc etching plates.

Printmakers Basil Hall and Jo Diggins from Basil Hall Editions in Darwin established a temporary studio at Merrepen Art Centre and set about helping the artists begin the process of making the first prints. A creative and productive collaboration soon developed as artists came and went from field to studio.



Fiona Hall and Marita Sambono during a rain shower in the bush near Daly River.

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The workshop was both organised and flexible. Uniform plate sizes were set to create a common format for the work while the etching process formed visual links between the contrasting artistic styles. Basil and Jo worked tirelessly with each artist through the process of trying different printing methods and developing ideas. Some of the artists began with soft ground impressions of plant material while others worked directly onto the plates (see Printmaking and Collaboration for more information).

As the Daly River began to flood and the roads became impassable the artists returned to Darwin and to the printmaking studio of Basil Hall where the artists and printmakers set about



Replant artists exploring the bush on the way to Daly River resolving images and proofing the etchings.

Nauiyu (Daly River) and the Art Centre

Nauiyu Community is located 230 kilometres southwest of Darwin located on the banks of the Daly River, two kilometres from the Daly River Crossing and surrounded by hills, spectacular wetlands and billabongs. Nauiyu community was established in the mid 1950's as a Catholic Mission and is home to 450 residents. The community consists of a church, school, health clinic, crèche, store, council workshop, police station, hotel and caravan parks.

Pidgin is spoken throughout the region, but the two major traditional language groups are Ngan'gikurrungurr and Ngen'giwumirri. There are another ten minority language groups still in use in the area including Marrithiel, Marrigarr, Marrimananyti, Malak Malak, Matngala, Ngan gikurungurr and Ngen giwumirri.

The Daly River is located between Darwin and Katherine and begins where the Katherine and Flora Rivers intersect and flow west to the Timor Sea. The Daly River originates in Kakadu National Park and Katherine Gorge, and its tributaries flow through a network of wetlands, billabongs and floodplains

creating a rich natural environment. The region encompasses many unique ecosystems, including the hot springs and gorges. It is a popular fishing and camping area renowned for its plentiful supply of barramundi. The climate is typical of northern Australia with contrasting wet and dry seasons, with regional flooding common during the wet. During this time Nauiyu can be cut off by flooding for several weeks meaning supplies must be flown in or brought by boat.

Merrepen Arts Aboriginal Corporation is a not for profit arts organisation based in Nauiyu. Merrepen Arts provides cultural, educational, vocational and economic opportunities for Aboriginal people in the Community.

The Art Centre was established in 1986 to provide work and education for women in the community. The name Merrepen (Livistonia Palm) is in recognition of the founding women. Work included craft and sewing, a place to display local arts and crafts and a venue for meetings, teaching, talks and discussions.

In 1998 floods devastated Merrepen Arts when the Daly River inundated the community destroying all art works and material stocks in the Art Centre plus equipment and records. Residents were evacuated to Batchelor College for three months. Rebuilding the Art Centre was an immense effort, but eventually resulted in the opening in 1999 of a new art gallery and office called 'Endirrlup' (meeting place).

Merrepen Arts now has a gallery and shop, office, kitchen facilities, print and canvas stretching workshop, meeting room, painting/workshop area and glass making facilities. The gallery is used for display and sale of art works and houses Merrepen Art's own collection of artifacts, art works and cultural items that have been repatriated to the community. Merrepen artists produce acrylic canvas paintings, limited edition prints, natural fibre weavings, screen printed fabric, glass and sculptures.



The mighty Daly River near Nauiyu Community.

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Indigenous knowledge and protocols

Protocols, cultural sensitivity and awareness were key elements of the Replant project. As in the plant world, the sharing of knowledge and cultural exchange can grow only when the elements are right. Aboriginal people have been associated with the Daly River region for tens of thousands of years and have an intimate knowledge of land management which has been passed down through the generations. Prior to the workshop permission was sought from the Traditional Owners to conduct the project. Upon arrival Glenn Wightman introduced the artists to the Traditional Owners of the area who welcomed the group to their country.

There are no fixed rules when interacting with Aboriginal and Torres Strait Islander peoples. Every community is different and there are hundreds of Aboriginal language groups in Australia each with a unique cultural background.

The following principles are taken from Australian Broadcasting Commission program Message Stick - Aboriginal and Torres Strait Islander Online and provide a guide for working with Indigenous peoples.

Respect

The rights of Indigenous people to own and control their cultures should be respected. Diversity of Indigenous cultures should be acknowledged and encouraged. Indigenous worldviews, lifestyles and customary laws should be respected in contemporary life.

Indigenous Control

Indigenous people have the right to self-determination in their cultural affairs.

Consultation, Communication and Consent

Indigenous people should be consulted on the way in which their history, community, interviews, lives and families are represented and used.

Indigenous people should be consulted on the use and representation of their Indigenous Cultural and Intellectual Property. Prior to use, Indigenous peoples should be informed on the implications of consent. Consultation should address the communal nature of Indigenous society and cultural expression.

Interpretation, Integrity and Authenticity

Indigenous people should be consulted concerning the integrity and authenticity of the ways in which their history, community, interviews, lives and families are represented. Indigenous people should be consulted concerning the integrity and authenticity of the representation of their cultural and intellectual property.

Secrecy and Confidentiality

The right of Indigenous people to keep secret and sacred their cultural knowledge should be respected. Sacred and secret material refers to information that is restricted under customary law. For instance some information may only be learned or viewed by men or women, or only after initiation.

Indigenous people have the right to maintain confidentiality about their personal and cultural affairs.

Attribution

Indigenous people should be given proper credit and appropriate acknowledgement for their achievements.

Indigenous people should be given proper credit and appropriate acknowledgement for their contributions and roles in the development of stories.

Indigenous people should be given proper credit and appropriate acknowledgement for the use of their cultural material.

Continuing Cultures

Indigenous people have responsibility to ensure that the practice and transmission of Indigenous cultural expression is continued for the benefit of future generations.

Sharing of Benefits

The contribution of Indigenous people should be recognised by payment where appropriate.

Indigenous people have the right to be paid for the use of their Indigenous Cultural and Intellectual Property.

The issue of copyright ownership of the story, image, music, contributions and artwork should be discussed up front.

Indigenous people should have the right to control exploitation of their cultural and intellectual property. If consent is given Indigenous people have the right to share in the benefits from any commercialisation of their Indigenous cultural material.

Recognition and Protection under the Law

Indigenous people have the right to protection of their cultural and intellectual property.

Reference:

<http://www.abc.net.au/message/proper/ethics.htm>.

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The Art Printmaking and Collaboration

The process of printmaking involves transferring ink from the surface of one material to another, (usually a metal plate or a wooden block onto paper or fabric). If the plate or block has been made to receive ink in the same way each time it is applied, this is called 'the matrix' and more than one print can be made. A number of identical prints is called an edition. Traditionally there are four ways to make a print, relief, intaglio, stencil and lithographic. The matrix, or ink-holding surface, is different for each one.

Artists often work in collaboration with printers to develop their matrix and edition their work. A collaboration is when two or more people work together to produce the best possible outcome. Printers will assist the artist by showing them a range of printing techniques, providing technical advice and also producing the edition for the artist.

In the *Replant* project all the prints created are etchings. Some etchings will involve more than one matrix. Etching means that the matrix was created by using acid to incise a zinc or copper plate. Each matrix is inked up by hand and rolled through a press to force the ink from the matrix onto the paper.



Replant artists Irene Mungatopi and Deborah Wurrkidj with printer Jo Diggens at the printing press.

In making an etching, the plate is first coated with an acid-resistant material called a ground. The names of the various types of etchings come from the types of grounds used. *Hard ground* and *soft ground* are used to make lines and an *aquatint ground* is used for tones.

In a hard ground etching the artist draws through the surface that coats the plate. Hard ground lines are usually thin, wiry and blunt at the ends. In soft ground etching the plate is covered by

a soft wax coating and this will create lines that look more like crayon marks. Objects such as plant material, lace or fingerprints can also be pressed into the soft wax to create an image directly onto the plate. Many of the *Replant* prints began as soft ground etchings. The artists gathered plant material and pressed it onto a soft surface. The plates were then immersed in acid to create the impression of the plant. Hard ground and aquatint methods were also used to make the *Replant* prints as artists drew images in combination with the soft ground images.

As the artist develops the plate the printer will print and test the image to check the development of the marks and tones, this is called a proof. A number of proofs can be made until the artist is satisfied with the image. To make the proof ink is applied into the grooves of the etching plate with a soft cloth and the plate surface is wiped clean. Finally the printer covers the plate with a moist sheet of paper, and runs it through a press. The press forces the paper into all the depressions of the plate and pulls the ink out onto the paper. Multi coloured prints may require a separate plate for each colour, these are printed sequentially on top of each other to produce the final work of art. This process is called registration. Most of the *Replant* prints are multi plate colour etchings.

Once the plate work is complete the artist approves the final proof. The printer produces a limited number of identical prints the same as the proof. At the end of the editioning process the printer will number the prints. This is called a limited edition. An edition number will appear on each individual print as a fraction such as 5/25 meaning that this particular print is number 5 of 25 prints made. The artist then signs the prints in pencil. Limited edition prints are produced on the understanding that no further impressions of the image will be produced, so at the conclusion of the editioning process the plate is struck (damaged) to prevent further editions of the same matrix being made. For the *Replant* project editions of 40, 30, 20 and 15 were made.



Replant artists looking at the finished proofs



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The Spread of Aboriginal Printmaking

Printmaking was introduced to Aboriginal communities in the 1960's and has rapidly grown to be a major part of the Australian Aboriginal arts industry. Printmaking is now commonly practiced by Aboriginal artists, providing a steady income and an affordable way for art collectors and art lovers to collect art by top artists.

Amongst the first Aboriginal artists to make prints in the 1960's were Kevin Gilbert and Bede Tungatalum from the Tiwi Islands. Within a decade the practice spread to other communities as Aboriginal artists began to work in collaboration with printmakers. For many Aboriginal artists the process of printmaking complements the traditional practice of carving or scoring designs onto the surface of wood or stone. The overlapping of layers of single colours in screen-printing is also similar to the way traditional bark and rock paintings are made. This process also allows easy transfer of designs onto fabrics as practiced by the Tiwi Islanders.

In the 1980's and 1990's art schools and print workshops began to invite Aboriginal artists to participate in printmaking programs. During the 1980's print studios such as the Canberra School of Art developed programs which involved Indigenous artists from Arnhem Land, Tiwi Islands and Central Australia. Some of the first artists to participate in these workshops included Johnny Bulun Bulun, England Banggala, Banduk Marika, Ellen Jose and Naminapu Maymuru. In the 1990's Canberra's Studio One Printmaking Workshop and the Australian Print Workshop in Melbourne also started to make prints with communities in the Northern Territory, Western Australia and South Australia and prominent individual artists such as Judy Watson, Clifford Possum and Arone Meeks.

Growing interest in Indigenous prints culminated in an important conference held at the Northern Territory University (NTU) in 1993 called 'Getting into Prints'. This meeting introduced new printmaking facilities in Darwin. Speakers from the arts industry, Aboriginal communities and peak bodies were able to discuss and explore the way forward for the print medium.

More recently print workshops have been established at a number of Aboriginal communities and print studios have specialised in collaborating with Aboriginal artists. Printers such as Theo Tremblay and Jorg Schmeisser from Canberra School of Art, Martin King from the Australian Print Workshop, Basil Hall, Monique Aurrichio and Jo Diggins from Northern Editions and later Basil Hall Editions, Leon Stainer from Charles Darwin University and Frank Gohier and Shaun Poustie from Red Hand Print Workshop have all worked closely with artists and art centres to help create a thriving art movement.

Limited edition prints by Aboriginal artists have been exhibited and collected regularly in Australia and internationally since the early 1980's. The unique quality of these prints has vastly increased the accessibility and public appreciation of the artists and has added new dimensions to their art making practice. Prints by Aboriginal artists are now recognised as being amongst the most dynamic art being produced in Australia.

Paper and Paper Making

In addition to making visual art *Replant* artist Winsome Jobling is also a renowned paper maker. The history of paper making stems back thousands of years as people experimented with all kinds of portable writing surfaces ranging from stone and wood to cloth. About 5,000 years ago, ancient Egyptians began layering strips of a wetland plant called papyrus (from which the word paper is derived) and pounding them together to make flat sheets. It wasn't until 105 AD that the process was perfected in China. Fibres were mixed from the shoots of bamboo, bark of the mulberry tree, (and other sources) with water to form a pulp that was then poured through woven screens. As the water drained through the screen, fibres adhered to the surface and fused into paper.

The Chinese remained the prime papermakers for about 500 years, but the craft eventually spread to Japan and across central Asia via caravan routes. By the mid-15th century, paper was well established in Europe. Old rags and clothing (made from plant fibres such as flax, nettle, and hemp) were the main ingredients. Today, newspapers, boxes, and other low and medium grade papers are made from wood pulp. The finest papers still have a high proportion of linen and cotton rag pulp.

In *Replant* Winsome Jobling made paper from the plants commonly found in the 'Top End'. She found banana, cotton, sugar palm and gamba grass the best plants to use for paper-making. See activities for information on how to make your own paper.



Replant artist Winsome Jobling at the press and above placing the spear grass seeds onto the etching plate.

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About the Artists

The *Replant* artists were invited to participate in the project on the basis of their art practice and come from a diverse range of cultural and stylistic backgrounds. Tiwi artist Irene Mungatopi traveled from Melville Island and was known for the depiction of plants in her paintings, Deborah Wurrkidj an accomplished traditional weaver came from Maningrida in north central Arnhem Land, Marita Sambono a young custodian from Daly River and Winsome Jobling, paper maker and sculptor from Darwin. Joining the group from interstate were environmental and installation artist, Fiona Hall from Adelaide and printmaker, painter and collaborator, Judy Watson from Brisbane.



Deborah Wurrkidj

Deborah Wurrkidj was born in 1971 at Maningrida in north-central Arnhem Land. Her language is Kuninjku and her moiety is Dhuwa. Deborah works at Maningrida Arts & Culture and is well known for her fibre weaving, woodcarving and printmaking.

Deborah is a versatile artist who has readily adapted to new art forms while retaining strong clan traditions. Her work is tactile and intricate and illustrates the artistic innovation that has occurred in Maningrida over the last 20 years. Deborah has exhibited nationally including the 19th Telstra National Aboriginal & Torres Strait Islander Art Award in 2002 and is represented in a number of state collections.



Deborah Wurrkidj Long Yam



Deborah Wurrkidj Black Plum

Deborah engaged in the subject of familiar bush-fruit from her traditional country near Maningrida in Arnhem Land. She reflected on her profession as a pandanus weaver and the teachings of her grandmother and grandfather and the sacred stories associated with the plants. Deborah's deceased grandfather was a renowned fibre-craft artist who made large and complex fish traps, it is through this ancestral heritage that she has developed her skills and interest in fibre-crafts. Her image of Pandanus is indicative of her view of the world from the eyes of a fibrecraft artisan.

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Fiona Hall

Fiona Hall is an eclectic and highly regarded artist from Adelaide in South Australia. She began her career as a photographer in the 1970s but has expanded her practice to include such diverse media as knitting, beading, drawing, painting, printmaking, sculpture, installation and garden design.

Much of Fiona's work over the past fifteen years has focused on botanical themes. The nature of her enquiry is intense and far-reaching. Her work often incorporates metaphors, and symbols linked by insightful and unexpected connections between the human condition and natural history. Fiona Hall is recognised nationally and internationally for her work and is represented in collections Australia wide.



Fiona Hall Green Ant Nest



Fiona Hall Shrubby Dillenia Leaf and Wasp Nest

Fiona continued her interest in Australian flora aligned with scientific botanical systems and ecosystems. Plants have been a vitally important subject area for Fiona, who uses plants as complex metaphors for a wide range of interests and issues. Her observation skills, interest in the natural world and passion for artistic interpretation allow her to quickly and methodically connect with the plants and animals around her.

I am fascinated by the deep connections between things," she explained. "I have a love of botany but I am beginning to think about the way the botanical world is totally inseparable to all living things, even the soil. The environment affects the way plants look and how species change from one place to another. My interest in nests comes from that interconnection. Fiona Hall.

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Irene Mungatopi

Irene Mungatopi is a Tiwi woman from Pirlangimpi on Melville Island, north of Darwin. Irene was born in Darwin in 1969. Her mother's country is Rangini and her father's country is Jurrupi. Her skin group is Yarrinapila, (red ochre), and her dreaming is Nyarringari, (Magpie Goose). Irene is a painter, printmaker, textile artist and arts worker at Munupi Arts & Crafts on Melville Island. Irene incorporates traditional Tiwi ceremonial designs into her art emphasising their importance and strong cultural associations with the subject of her work. Irene has exhibited nationally and internationally since 1998.



Irene Mungatopi Green Plum Leaf



Irene Mungatopi Pink Beach Apple

Irene drew upon a finely tuned knowledge and memory of bush tucker with cultural associations over thousands of generations.

I made an etching of the green plum", she explained. "It is called yankumwani in my language (Buchanania obovata, Green Plum). It grows in the bush on the Tiwi Islands where I come from. We walk along the bush at the end of the dry season and we see those plums hanging down. We eat them straight from the tree. They taste lovely. They have a pale flesh and a seed inside. We eat the flesh and throw the seed away. Irene Mungatopi.

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Judy Watson

Judy Watson is a prolific artist based in Queensland. Much of her art is concerned with tracing her ancestral roots and exploring the cultural, spiritual and historical heritage of her connection, through her grandmother and great grandmother, to Waanyi country in northwest Queensland. She also has deep and passionate interests in women's, political and environmental issues. Judy Watson has gained national and international recognition for her art. She was one of three Aboriginal women artists chosen to represent Australia in the 1997 Venice Biennale and is one of eight Aboriginal artists featured in the Musee Du Quai Branly project which opened in Paris in 2006.



Judy Watson bat-wing coral tree



Judy Watson fan palm, dodder laurel, flat-leaf plant

Judy drew broadly upon her ancestral connection with Waanyi country, which straddles the NT/QLD border in the Gulf Country. Judy incorporates women's stories, events, acute observations of the environment and her memory to create complex images. With a spirit of investigation Judy collected plants incorporating culturally significant species into spiritual symbols and historic references of land invasion and settlement. Her work is about fragility and resilience; emblematic images float against the power and chaos of nature.

You do not see things on their own" she observed, "but in an interconnected way with everything else. It is a whole intermeshing of life forms and the matrix of seeing through a landscape where everything is entwined and related. Judy Watson.

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Marita Sambono

Marita Sambono was born in the old hospital at the Daly River Mission, also called Nauiyu, nestled on the banks of the Daly River, 230 kilometres southwest of Darwin. Marita is part of a renowned family of Ngan'gikurunggurr artists and traditional knowledge custodians.

Marita is known for her paintings on canvas and silk, which are immersed in cultural and ecological processes of her country. She also paints religious themes. Marita has exhibited since 1987 and has been represented in the National Aboriginal and Torres Strait Islander Art Award at the Museum and Art Gallery of the Northern Territory seven times.



Marita Sambono Fog Dreaming



Marita Sambono Under Water lilies

The images by Marita Sambono from Daly River are based strongly in the culture and customs of her country and express an intimate knowledge of plants and bush tucker from her ancestral country. Her water lily image evokes images of women quietly moving through waist deep water harvesting the tasty water lily fruits and yams from billabongs; the elders passing on the knowledge to the younger women. Fog Dreaming depicts the steam rising from the hot springs of her grandmother's country.

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Winsome Jobling

Winsome Jobling was born in Sydney in 1957 and moved to Darwin in 1982 when she began experimenting with papermaking. Well known for paper installations and sculptural forms, which extend traditional notions of papermaking, Winsome has experimented with around 60 native and introduced plant species.

Winsome has exhibited nationally and internationally since 1981. Her practice is linked to the environment on both political and physical grounds. Winsome's art is tactile and sensual, often contrasting elements of texture, translucence, fragility and strength. A new development in her work incorporates watermarks in paper, which reference the sometimes hidden nature of knowledge, ownership, power and history.



Winsome Jobling Fertile



Winsome Jobling Spear Grass etching on paper and chine colle' on hand made paper, (banana, cotton, sugar palm and gamba grass)

Winsome focused on Spear Grass as the dominant element in the 'Top End' landscape during certain seasons. *Replant* occurred towards the end of the wet season when the Spear Grass was shedding millions of awned seeds across the savanna landscapes. After the wet season the knock em down winds flatten the grass, which mulches the ground and provides nutrients for the soil, the plants and many insects. Later at the beginning of the wet, after having sat dormant for months, the seed awns are stimulated by the high humidity and they drill the seed down ready for germination with the first rains, and the growth cycle begins again.

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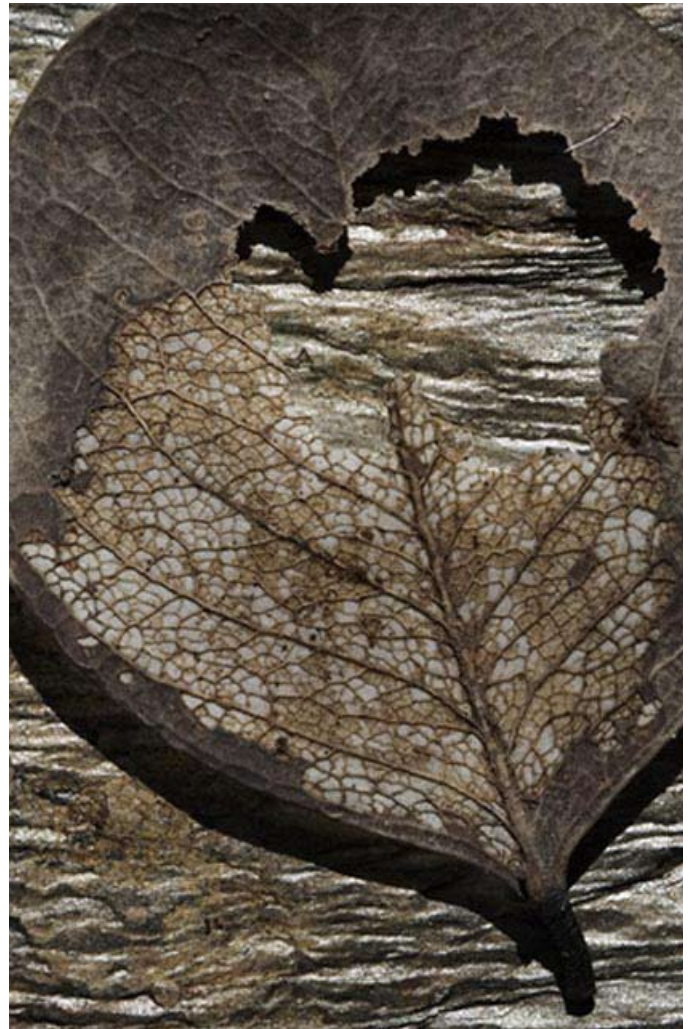


Peter Eve

Peter Eve has been working as a freelance photographer and designer in Darwin since 2001. A constant traveler from Cairns to Kimberley and from Arnhem Land to the red centre his photography celebrates Indigenous culture and the environment of remote Australia. His evocative images are regularly published in national editorial journals, newspapers, art magazines and shown in art galleries nationally. Well known for his versatile approach and fresh eye, Peter has a unique ability to capture community life and distinctive personalities in isolated and regional Australia, while his landscape images encapsulate the essence of wilderness and place.



Peter Eve Hidden Currents



Peter Eve Ironwood Leaf

Replant took place at Daly River in April around the height of the wet season. Each day the artists spent time sauntering along bush tracks or on hands and knees in the scrub unabated by the passing storms. The rising floodwaters of the Daly were foremost in our minds as were the intrinsic and fluid links between seasons, plants, people and country. As resident photographer my job was to observe and record. I watched the artists in the field, watching nature. The more I observed, the more I tuned into the complex surroundings with them. Microscopic detail, recurrence of systems, the surging floodwaters and the ingenuity of nature became my preoccupation. The abundance of water conveyed a multitude of ideas, created subject matter and filtered a gentle light. The contrasting energies of procreation and decomposition were everywhere. My images capture the confluence and spirit of an environment during a time of natural profusion and transformation. Peter Eve

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The environment of the Top End

The 'Top End' of Australia has two main seasons, a relatively cool dry period from May to September and a hot, humid wet season from October to April. Some Aboriginal groups recognise a calendar of six seasons from the monsoon time of lush vegetation and growth, through periods of flowering and fruiting to 'knock em down' storms and woodland grass fires. Later the floodplains become parched and waterholes disappear, the weather grows hotter and more humid and the landscape withers in the sun, awaiting the first rains to come again.

The Northern Territory Herbarium

The purpose of herbaria are to preserve and document the diversity of plants. The Northern Territory Herbarium is like a botanical library; it has over 4000 species of native plants in its collection. Each plant is preserved, labeled and organised to allow easy access and long-term storage. The plants are pressed, dried and glued or sewn to a sheet of heavy paper together with a data label. The label describes useful information including the plant's Latin name, the origin and date of collection and the name of the collector. The paper sheets are all the same size and are kept in protective storage cabinets. Some plants are too big to fit onto standard paper. In some cases a specimen may be spread out on several separate sheets. Large structures like pinecones may be stored in separate boxes. Delicate plants such as orchid flowers may be pickled and stored in jars. Photographs may also accompany the specimen sheet. The plant specimens are arranged according to the family, genus and species they represent and the location they were collected.

The purpose of collecting and pressing plants is to allow people to identify species, compare discoveries, identify new plants and document the diversity and distribution of plants worldwide.



Irene Mungatopi and Deborah Wurrkidj talking to Glenn Wightman at the NT Herbarium.

The NT Herbarium updates species lists for the Northern Territory. Many of the plants are commonly found and have well recorded information but for others information is limited or they are of rare and hard to find. With the Territory representing a significant part of the continent, there is also a great diversity of plants. Herbarium staff record vital information, plant communities and structure to assist planning and monitor change. Ref: <http://www.nt.gov.au/nreta/wildlife/plants/index.html>



Replant artists with Glenn Wightman and Dr Greg Leach at the NT Herbarium.

How Plants Are Named

Taxonomy is the science of classification. Every plant species on Earth has a single scientific name by which it is known. Having a standard method of naming plants means scientists can communicate clearly and understand which species they are referring to no matter what language they speak. The scientific way of naming plants is called binomial system because it has two words, the genus name and a species name. The genus is like the family name, while the species name often describes a characteristic of the plant.

The scientific name for pandanus for example (the plant Deborah used as the basis for her print titled *Pandanus Weaving*) is *Pandanus spiralis*. Pandanus is the genus and comes from the classical Latin name for this large group of plants. The specific name, in this case, spiralis indicates that the pandanus leaves grow in a spiral formation.

Species often have other variations such as a different flower color, leaf shape or height. This variation may be sufficient to name a new species, but if the variation is minor or there is lots of overlapping features; a subspecies may be named. (See resources section for more information)

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Ethno-biology in the Northern Territory

Ethno-biology is the study of the way plants, animals and micro organisms are used by humans. In the Northern Territory the Department of Natural Resources, Environment and the Arts has been working with Aboriginal peoples to document plant use and language names since 1986. This work is done at the request of Aboriginal elders and aims to assist people to record and conserve traditional plant knowledge for future generations.

Over the years a series of booklets relating to individual language groups has been published. These booklets are based on the results of fieldwork with elders of various communities. The publications record traditional plant knowledge and present it in a format that is suitable for Aboriginal people to learn about traditional culture. Other Educational materials produced include plant use posters and illustrated plant identification kits on desert bush tucker and bush medicine. These are available at <http://www.nt.gov.au/nreta/publications/nreta/index.html> or tel 08 89994795.

Glenn Wightman

Glenn Wightman has developed a deep understanding of traditional plant and animal knowledge over 25 years. Since graduating from Melbourne's Monash University in 1981, Glenn has been working closely with the many Aboriginal communities in the 'Top End' of the Northern Territory to help them record this precious knowledge in a scientific and culturally sensitive manner. His books on the plants and animals of northern Australia are in some cases the last surviving record of knowledge that has been passed down through Aboriginal Australian generations over thousands of years.

Glenn Wightman has coordinated 15 books from clans of different languages throughout the top half of the Northern Territory and Western Australia. The books are always published in accordance with the wishes of the elders, who retain authorship and full copyright. For a list of publications by Glenn Wightman go to <http://www.nt.gov.au/nreta/publications/nreta/index.html>



Glenn Wightman at the Northern Territory Herbarium



Glenn Wightman, Judy Watson, Marita Sambono, Patricia Marrfurra and Biddy Lindsay in the bush at Daly River.

About Aboriginal Knowledge and Plant Use

The accumulated knowledge of plant use has sustained thousands of generations of Australian Indigenous people. Many plant species have various uses, including food, medicine, utensils, tools, musical instruments and weapons.

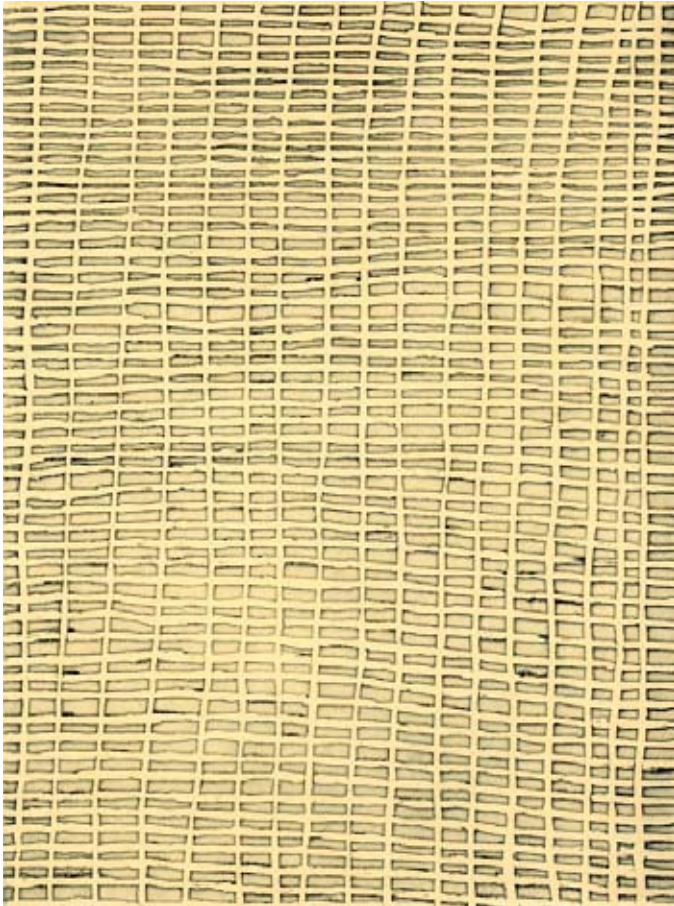
In 1788 European colonisation brought a revolution of social change to Australian Indigenous people. As Europeans settled, traditional Aboriginal customs began to change, people were forced off their traditional lands or modified traditional practices. As the impact of new settlers grew, the handing down of traditional knowledge, culture, spiritualism, art, language, flora and fauna began to decline in many parts of Australia.

Despite the impact of Europeans, Aboriginal culture remains central to the land. The land is regarded as the relationship between ancestors, living things and living earth. Aboriginal people believe the land is the origin of life; mythical creative spirits came from the earth to create landmarks, animals and plants then sank back into the earth where they remain.

Traditional Indigenous practice remains strong in many parts of the Northern Territory, for example gathering bush tucker is still common across the 'Top End' and Central Desert and is a vitally important aspect of maintaining a healthy and spiritual life. Collecting of plant food was traditionally women's business. Now families go into the bush together to gather food, enjoy the environment and pass on traditional knowledge. In *Replant* the gathering of six female artists reflects the traditional role of women as gatherers of food and holders of this knowledge.

replant

PROJECT NOTES



Deborah Wurrkidj Pandanus Weaving

This classical interpretation of Pandanus by Deborah Wurrkidj is based on its iconic use as a base for fibre crafts by an artist steeped in contemporary fibre craft expertise and coming from a line of famous fibre craft artists. Deborah's deceased grandfather was a renowned fish-trap artisan whose works are displayed in many museums and galleries in Australia and overseas.
Glenn Wightman



In Arnhem Land women use mainly pandanus for their coiling and natural dyes from plants for colouring

The following is a list of some Australian plants from the tropics and the desert regions used to make or dye fibre objects

- Banyan tree (*Ficus virens*) – rope is made from the inner bark of the aerial roots.
- Colour root (*Pogonolobus reticulatus*) – the bark of roots is used to dye fibres. The chunky bark is chipped off the roots and boiled in water with Pandanus and Livistonia leaves to colour them. Colours from orange to dark brown can be obtained.
- Northern Kurrajong (*Brachychiton diversifolius*) – the inner bark of young trees is used to make string.
- Pandanus (*Pandanus spiralis*) – the leaves are stripped into long lengths and used to make baskets.
- Rotten (or stinky) cheese fruit (*Morinda citrifolia*) – the root bark can be used as a yellow dye for fibre, the new leaves can be used to make a dark green colour.
- Sand palm (*Livistona humilis*) – the new leaves are dried then twisted into a soft string
- Spinifex (*Plectrachne bromoides*) - spiky grass used for weaving
- Red root (*Haemodorum coccineum* and other species) – The red tuber chopped into small pieces and boiled in water with fibre as a dye. It produces a red-brown colour. The dark purple fruit are also used as a dye and produce purple coloured fibre



PROJECT NOTES

Web sites

The Top End Environment

- Travel NT

http://en.travelnt.com/assets_static/seasons-of-kakadu/kakaduSeasons.swf

- Bureau of Meteorology

http://www.bom.gov.au/iwk/climate_culture/Indig_seasons.shtml

- Wetland Habitats Of The Top End - Michael Michie

<http://members.ozemail.com.au/~mmichie/habitat1.htm>

Indigenous protocols

- ABC National Broadcaster

Aboriginal and Torres Strait Islander On Line - Respecting Indigenous Cultures

<http://www.abc.net.au/message/proper/ethics.htm>

- NSW Board of Studies

This website showcases examples of school-developed context-based teaching and learning projects across K-12, and which have been collaboratively developed by teachers, Aboriginal education workers and local community members.

The website also provides examples of processes that teachers might use to develop contextual classroom teaching units that connect learning outcomes and content with the needs and interests of students.

<http://ab-ed.boardofstudies.nsw.edu.au/>

- Australia Council for the Arts – Visual arts: protocols for producing Indigenous Australian visual arts

http://www.australiacouncil.gov.au/publications/indigenous/visual_arts_protocols_for_producing_indigenous_australian_visual_arts

Printmaking

- Nomad Art Productions

<http://www.nomadart.com.au>

- Basil Hall Editions

<http://www.basilhalleditions.com.au/>

- Australian Print Workshop

<http://www.australianprintworkshop.com/default.asp>

- Crown Point Press – About printmaking

<http://www.crownpoint.com/printmaking>

- MoMa the Museum of Modern Art, New York - What is a print?

<http://www.moma.org/exhibitions/2001/whatisaprint/print.html>

<http://www.artbacknt.com.au/>

Herbaria and collecting plants

- Northern Territory Herbarium

<http://www.nt.gov.au/nreta/wildlife/plants/index.html>

- Centre for Plant Biodiversity Research

<http://www.anbg.gov.au/cpbr/herbarium/collecting/index.html>

- Waddell School Herbarium Project USA

How to Start Your Own Herbarium

http://waddell.ci.manchester.ct.us/g_herbarium_own.html

- Fun Science Gallery USA

Science experiments and other activities

http://www.funsci.com/texts/index_en.htm

- Australia: 300 Years of Botanical Illustration

<http://www.publish.csiro.au/samples/300%20Years%20Sample.pdf>

- Australian National Botanic Gardens

www.anbg.gov.au

Curriculum Links

The *Replant* exhibition has strong connections to the Arts, Studies of Society and Environment, Science and English.

The exhibition will allow students to explore:

- Media, materials and technologies
- Continuity and change
- Society and culture
- Social dimensions of art
- The role of artists in different societies
- Design considerations and constraints
- Relationships to the land as expressed by Indigenous culture
- Natural science, botany and ethno botany

Acknowledgements

The *Replant* Education Kit was developed by Artback NT for use in schools and at exhibition venues. The activities may be reproduced for teaching purposes. Permission to reproduce any material for other purposes must be obtained from Artback NT.

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