aporian emulsions

Lloyd Godman

working with photograms & antiquarian emulsions 1995 - 2003

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PHOTO-synthesis

Aporian Emulsions

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Contents

Aporian Emulsions

The bold motifs, brush strokes swiped across the paper are based on a variety of sources: grave markers from Port Ross in the Auckland Islands, the beacon on the Amherst Spar, coastlines, the southern convergence, meteorological depressions, ocean vessels, objects of navigation etc. Nail's of the Crucifixion, St Sebastian's Arrows, Alchemic symbols. In many works, the marks are graphically bold, speak loudly and dominate the page.

Both these bolder designs/motifs and the more delicate lines and textures, the intricate details infused within the gestalt relate to earlier projects: "Codes of Survival" 1990-92 , "Evidence from the Religion of Technology" 1994 and even further back to the obscure references of "Symbols" 1986-9. From the echoes of these earlier references, a discourse is carried forward, but in Aproian Emulsions, a further evolution grows, a signature emerges, a cryptic visual vernacular.

The finer details, fragments between the surface, reference different items; discarded debris, artefacts of existence both from the natural organic world and the human manufactured. They investigate the veiled expanse between discarded and useless rubbish and significant cultural artefact salvaged from an archaeological site: the utilised spent and worthless, and the utilised once abandoned but now suddenly valued within a difference context. As the image replaces the object and becomes a new surrogate, a secondary artefact emerges.

fragments between the surface

Translation is an archaeological episode, a piecing together of evidence from the position and experience of the viewer, a site of personal investigation, discovery. Inspection of the detail reveals fragments of information, but in the areas where the emulsion was never coated, portions remain forever lost and while the imagination might conjure the content of the holes, it is an unsolvable mystery there is a point of doubt and indecision about what they may have contained.

But these images are more complex than the simplicity of motif and detail would suggest, and the antiquarian processes intricate this complexity. They are made by mixing various base chemicals and selectively painting the resulting liquid emulsions on to sheets of paper in semi-darkness, then (after it is dry) making photograms, using clich'e verre and the more traditional form by laying real objects on the paper and exposing the resulting combination to sunlight for up to an hour in some cases.

These chemical processes date back to the invention of photography around the 1820s by Fox Talbot and the cyanotype by Hershel. But where the confines of the past dictated a rectangular application, in the Aporian Emulsion, the coatings break into a free form where the emulsion is selectively coated.

Alchemy is an influential philosophical tradition whose practitioners have, from antiquity, claimed it to be the precursor to profound powers. The defining objectives of alchemy are varied, but historically have typically included one or more of the following goals: the creation of the fabled philosopher's stone; the ability to transform base metals into the noble metals (gold or silver); and development of an elixir of life, which would confer youth and longevity. Alchemy differs significantly from modern science in its inclusion of Hermetic principles and practices related to mythology, magic, religion, andspirituality. It is recognized as a protoscience that contributed to the development of modern chemistry and medicine. Alchemists developed a structure of basic laboratory techniques, theory, terminology, and experimental method, some of which are still in use today. (Wikipedia)

In the Aporian Emulsions, the combination of chemical processes and alchemic symbols promote a sense that chemicals released into the environment are free to permeate the environment in ways that we may not quite appreciate. Where alchemy was an imprecise science where the cause and effect where never fully understood, modern quantitative science was thought to control the chemicals and processes in a defined manner; science has nature under control. But the proliferation of synthetic chemicals and release into the wider environment where they can uncontrollably combine to create new unknown atomic bonds underlines that modern science is still an alchemy we do not fully understand or have control of. Minute traces of chemicals released into the environment through water systems, soil and air, continue to grow in concentrations and permeate every part of the planet.

Physical existence relies on the hiatus between subjects, evidence of existence relies on the imprintation of the subject and acknowledgement of existence on survival of the artefact with consequent access.

Separation into defined entities permits identification, permits classification, spaces between similar entities permit confirmation of individual status, spaces between objects imprinted on the emulsion, spaces between the strokes of emulsion itself separate objects by a different means. Like islands in an ocean; coastlines where the ocean is aporian. Vast areas of unreferenced territory or what we might consider as music with intervals of silence that are an integral part of the composition. A place where the spaces survey the result of mark-making, a place of absence, a place of presence. An emulsion where the stroke of a brush is a destiny.

Recording permits recognition in a post-object circumstance, that which was evidenced for the future but no longer exists. All physical entities have this potential, but providence and choice decide which articles are transcribed for the future and which miss the boundaries of the photo-sensitive recording medium. Those exterior to this domain, the facsimile, are excluded forever, we assume they are either unimportant or never existed. Acknowledgment is the consequential act. The site where surviving secondary artefacts are decoded, where the mystery of the image reveals an infinity of interpretations. Access to the site is an act of empowerment, it gives a rationale to the process and the documentive artefact.

While marks in themselves can represent a variety of meaning; motifs like nails from the crucifixion, arrows of St Sebastian, that we recognizes as Christian artefacts with established meaning and significance; and alchemic symbols that have another set of established codes are difficult to escape. Using these motifs with over laid intricate details of other symbols, artefacts with another set of codes suggests a new meaning, a different crucifixion for instance - where the earth is crucified, a different alchemy - where what is considered controlled and understood is released into the environment and takes on a mutant life of its own. A crucifixion where nails are driven into a larger body, where arrow after arrow are shot into a different flesh - the humus of the land.

An alchemy, where like a photo-sensitive emulsion, the effect lies latent and the symbol is fixed, detach from the cause only to reveal itself at a much later time as is evidenced in the damage to the ozone layer.

The boundaries of recorded existence create the barriers where the secondary artefact concludes and the aporian emulsion initiate an imaginative dialogue, suggestion replaces actuality. The incomplete are completed while the unreferenced may never begin. It is not that they never existed but they were never referenced. It is where a similar entity could be, but because there is no reference, doubt remains. Total lack of reference creates uncertainty, the thought of their existence might never occur, or if it does uncertainty remains. Presence/absence creates contradiction, confrontation/contestation. There is engagement between the presence of the bold marks created by the chemical emulsion and absence in the aporian emulsion where the sensitiser was never applied, the primary artefacts never referenced. Historically there has been an emphasis on a complete and smooth application of antiquarian emulsions like the cyanotype and Van Dyke Brown on the surface of the page to maximise the recording of detail. Fully refined we have the familiar photographic surface, complete, urbane and rectangularly defined, there is also another potential, one that embraces selective coating, one where the emulsion creates marks, motifs, symbols, one where the emulsion is not even, where it pools deeper or thinner as the brush curves across the surface, where the pressure from the hand changes, the bristles separate, the brush runs dry.

Each print contains a unique emulsion that cannot be repeated, an emulsion where the uncoated gaps challenge the sensitised marks penetrating the fibres of the paper, an Aporian Emulsion.

The flow of an emulsion can pursue inexhaustible courses, a controlled course, a random course, or so many courses that it becomes a single plane and obliterates reference to any course at all. Where the line of emulsion flows is in the hand of the maker, and when that emulsion is sensitive to radiation, the potential to record detail and intricacy, to imply more complex meaning is augmented. To coat these papers in a safe light the environment can be dim. The process of coating the paper creates uncertainty of where one has been, a semi-blind course charted by a semi-visible line in a half light. As much as the controlled path is anticipated, randomness takes its course. In processing the print, the process is also allowed freedom, aberration is encouraged.

The measuring, mixing and coating of the handmade emulsion is a different archaeology, it explores the earliest layers of photography when science and magic danced at the discovery of the photographic medium. There is a ritual involved that places the maker in a scientist, sorcerer-like role where science and cabalistic forces meet in a homage to Daguerre, Fox Talbot, Bayard, Atkins, Herschel, it relates to the primitive history of photography an alchemy of image-making. Here the maker is more responsible for the whole process, a process that can change the existing world, a magic that can fix a facsimile on the page. 150 years later it still holds a special power, a power that is revolutionary and relevant for any individual to rediscover in a contemporary environment.

There is the implication that because the image is seen and we know that light affects photographic materials the same holds true for these emulsions. Light is inextricably linked to our vision, light is central to photography and the resulting image is accessed through this phenomenon, light. But when the emulsion is activated by another source of radiation beyond the visual spectrum, the resulting image is intangibly different, something of the photographic is removed, something distinctive is associated with this other process. The cause is outside our vision, the effect within. The cause is aporian, and selective application of the emulsion creates voids that expand this. There is a space between the commercial traditional silver gelatine photographic emulsion and the alchemy of these processes.

The Cyanotype and Van dyke Brown emulsions react to ultra violet not light, like infrared and x- rays they contain another vision beyond our sight. In each case we see the effect but not the cause. Because of this they cannot be exposed in a camera, the negatives (or in the case of the photogram) objects imprint themselves in contact with the emulsion. There is no means (or necessity) to enlarge the object as with the traditional photograph, the size reference of the object is printed on to the emulsion. With the camera, the act of taking a photograph can be reduced to fractions of a second but with sun or solar printing the aporian emulsion, the exposure can range from 10 minutes to several hours. In this time, the source of energy that drives the process arches across the sky and the angles of rays and shadows played onto the emulsion change. The object are less distinct on the page, each appears to have an aura that vibrates a light as a reference to its creating force. There is variation beyond prediction. With the traditional silver gelatine emulsion, there is a period of absence, latency, when the image exists but is hidden and waits development in chemicals; with aporian emulsions the image reveals itself imprinted on the emulsion through variation of colour, there is a presence immediately after the exposure.

As a boy of around 13 I can remember a large light machine at my father's office for making blue prints. It was a box like structure with a lid that covered the entirestructure and lifted to reveal a large glass top with rows of ultra violet tubes deep below. Original hand drawn architects drawings on tracing paper were delivered to the office and many copies were made onto specially sensitized paper by exposing light through the original ink line drawing onto the sensitized side of the receiver sheet. These were large prints and in my farthers case, contained all the wiring details needed to complete the installation of a fire alarm system. The paper was then processed in an ammonia solution; I still remember the smell permeating the entire office. These were called blue prints, and over time the process was replaced by photo-copying, but this was in fact the very same cyanotype process I used to create many of the prints for this series.

But these images contain another degree of randomness that makes them unique: the intricacy of the photogram. It is a method of photogenic drawing that leaves singular imprints, unique is the tracery imprinted on the paper. The selection and placement of objects, primary artifacts from a material world, is a transitional one creating comparable but distinctive markings. Each circumstance is different, each image unique.

Like the emulsion itself, the photogram is an ancient artifact from the site of photographic invention. It pays homage to Fox Talbot's earliest experiments, to Anna Atkins and her largely unacknowledged works where she created a large body of cyanotypes using plants laid on the emulsion, where she created the first book of photographs, where she used a photographic process to record scientific information, where she remained silent and never became a drowned woman as Hippolyte Bayard reacted and became a became a drowned man . It also plays homage to the mid layers of artifacts that Christian Schad, Man Ray and Moholy Nagy left behind when they rediscovered the technique in 1918 and attached a different rhetoric of meaning: that of Dadaism, Suprematism, Constructivism, that of Surrealism, that of the modernist movement. A photography of counter current.

The Aporian emulsion is one with gaps, holes, where nothing is certain, where objects and artifacts appear and dissolve, where the future meets the past, where a maker can experiment with uncertainty of process and discover a new language for self and object in state of presence and absence, where there is a continuation of the counter current that runs against traditional lens based photography.

Aporian Emulsions

the manufactured photo surface is urbane
it covers the entire surface
it offers immense image facility
But selective coating creates marks
where the emulsion is not even
motifs, symbols, appear
where it pools deeper or thinner as
the brush curves across the surface
where the pressure from the hand changes
the bristles separate
the brush runs dry - then thick again
where the stroke curves in elegance
or breaks sharp in a bend
or stops dead
where it creates an aporian emulsion

Between the surface Between the surface

Aporian Emulsions

initial layer of investigation

Following the Evidence from the Religion of Technology series of large colour photograms, in late 1995 and through the months of 1996 I experimented with Cyanotype and Van Dyke Brown emulsions. These are antiquarian light sensitive emulsions where one mixes the chemicals from base, paints the liquid on the paper or support base in subdued light, lets it dry and then lays a negative or in the case of a photogram, object, on top exposing it to sunlight and finally processes the paper in water or chemicals to reveal the positive image. Traditionally the emulsion is most often applied in a manner where a rectangular area slightly larger than the contact negative is covered with the brush. For the first experiments I used a large format 8 X 10 inch contact negative and in one of the experiments there was a streak where the emulsion failed to cover the area. A long hole ruptured the integrity of the image separating land and sky. Rather than discarding this flaw, for me it opened a potential that became the Aporian Emulsion series. I began to apply the emulsion in a more random manner and also using graphic line drawing images that were then photocopied onto A3 transparent material that became the contact negative in a similar manner to a clich'e verre. Some of these early experiments were later hand coloured.

When I was invited to exhibit in an exhibition, From Cinema Archaeology to Mail Art, Fano, Italy, I created a large contact transparency negative on a sheet of acetate through a photo-copy machine and coated the paper in an even more fragmented manner. The strong graphic lines of the resulting print looked less like a photograph and more like a painting. Once it dried, I applied hand colouring and stuck four New Zealand postage stamps from the series Centenary of Cinema that referenced four new Zealand films - Hinemoa by George Tar 1914, Broken Barrier by John O'Shea 1952, Once were Warriors by Lee Tamahori 1994, Good Bye Pork Pie by Geoff Murphy 1981. Each stamp contained an adjacent mystery segment of a scratch out panel with the potential to win a prize, which were deliberately left intact.

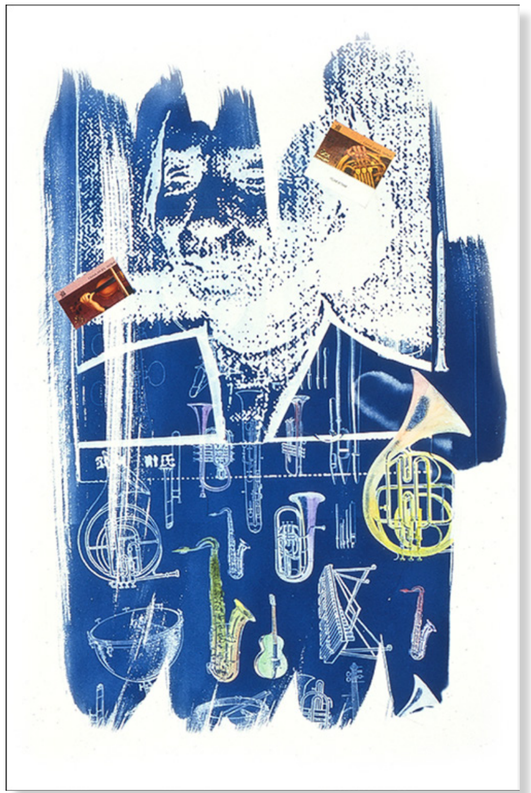
I later followed this with another image for the exhibition Homage to Toru Takemitsu, (The Music has Ended), Shinjuku-ku, Tokyo, Japan which included postage stamps of musical instruments. From these two images came the realization that the application of the emulsion was beginning to intentionally fragment and divorce the tyranny of the rectangle that had bound traditional photography.

Untitled - Cyanotype photogram print from 8 X 10 Contact Negative - 1995

Untitled - Van Dyke emulsion photogram/clich'e verre print - 1996

Untitled - Van Dyke emulsion photogram/clich'e verre print - 1996

Archaeology of Cinema - photogram/clich'e verre hand coloured Cyanotype with postage stamps - 1996



Homage to Takemitsu - photogram/ clich'e verre hand coloured Cyanotype with postage stamps -

One thousand years - Van Dyke emulsion photogram/cliché verre print - 1996

One thousand years - Van Dyke emulsion photogram/cliché verre print - 1996

Aporian Emulsions

second layer of investigation

From this point the application of the photosensitive emulsion was deliberately painted on the paper surface as a motif rather than a covering which referenced a rectangle. The application was carried out with a broad brush in the semi dark of a yellow safelight and because the emulsion is a yellow colour it has a similarity to painting with an invisible pigment. The motifs encompass a grave marker from the Auckland Islands that feature in the *Codes of Survival* project, while the nail shapes relate to the crucifixion of the earth and the way we drive things into the soil, substrata and rock. Brush marks were explored for their aesthetic potential.

In some images the emulsion becomes a heavy dark stain on the paper, while in other images it appears to have faded suggesting exposure over time has played effect in a similar manner to the Holy Shroud in Turin.

Bold blue lines of the cyanotypes represent weather patterns and pressure zones.

Beacon - Hand coloured Photogram Van Dyke Brown Print - 840 x 600 - 1996
The motif is a reference from a beacon on the Auckland Islands

Emblem From a Sailors Grave - Photogram Van Dyke Brown Print - 840 x 600 - 1996
The motif is a reference from grave markers and beacons on the Auckland Islands

Emblem From a Sailors Grave - Photogram Van Dyke Brown Print - 840 x 600 - 1996
The motif is a reference from grave markers and beacons on the Auckland Islands

Nails of the Cross 1 - Photogram Van Dyke Brown Print - 1020 x 860 - 1996

Nails of the Cross 2 - Photogram Van Dyke Brown Print - 840 x 600 -1996

Nails of the Cross 3 - Photogram Van Dyke Brown Print - 840 x 600 - 1996

Ichthys 1 - Photogram Van Dyke Brown Print - 840 x 600 -1996

Non Site- Photogram Van Dyke Brown Print - 840 x 600 - 1996

Nails 1 - Photogram Van Dyke Brown Print - 1010 x 670 -1996

Nails 2 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 3 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 4 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 5 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 6 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails of the crucifixion - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 7 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Nails 8 - Photogram Van Dyke Brown Print - 1010 x 670 - 1996

Oceans I - Photogram Cyanotype Print - 840 x 600 - 1997

Surge I - Photogram Cyanotype Print - 840 x 600 - 1997

Anticyclone I - Photogram Cyanotype Print - 840 x 600 - 1997

Southern Convergence I - Photogram Cyanotype Print - 840 x 600 - 1997

Passage I - Photogram Cyanotype Print - 840 x 600 - 1997

Passage II - Photogram Cyanotype Print - 840 x 600 - 1997

Untitled - Photogram Cyanotype Print - 840 x 600 - 1997

Untitled - Photogram Cyanotype Print - 840 x 600 - 1997

Southern Oscillation - Photogram Cyanotype Print - 840 x 600 - 1997

Runic symbol - MAN, Van Dyke Brown 840 x 600 - 1996

Runnic symbol - MAN, Van Dyke Brown 840 x 600 - 1996

where it pools deeper or thinner as
the brush curves across the surface
where the pressure from the hand changes
the bristles separate
the brush runs dry - then thick again
where the stroke curves in elegance
or breaks sharp in a bend
or stops dead

Aporian Emulsions

Alchemic Symbols

Through the coating, exposing and processing of so many prints, the work certainly had an element of excitement and discovery. I saw a mix between the surrealist association of the dream in the photogram process and alchemy in the mixing and processing of the chemicals.

But, I could not help but wonder what happened to the chemicals washed away in the processing. I had also been reading more about the fine traces of chemicals left in the environment from agriculture and an industrialized society. Once discarded into the wider environment, synthetic chemicals can combine creating new chemical compounds the structure and nature of which we do not know. This uncertain science seemed to reference another alchemy, and I began to use the cryptic symbols of alchemic in the motifs.

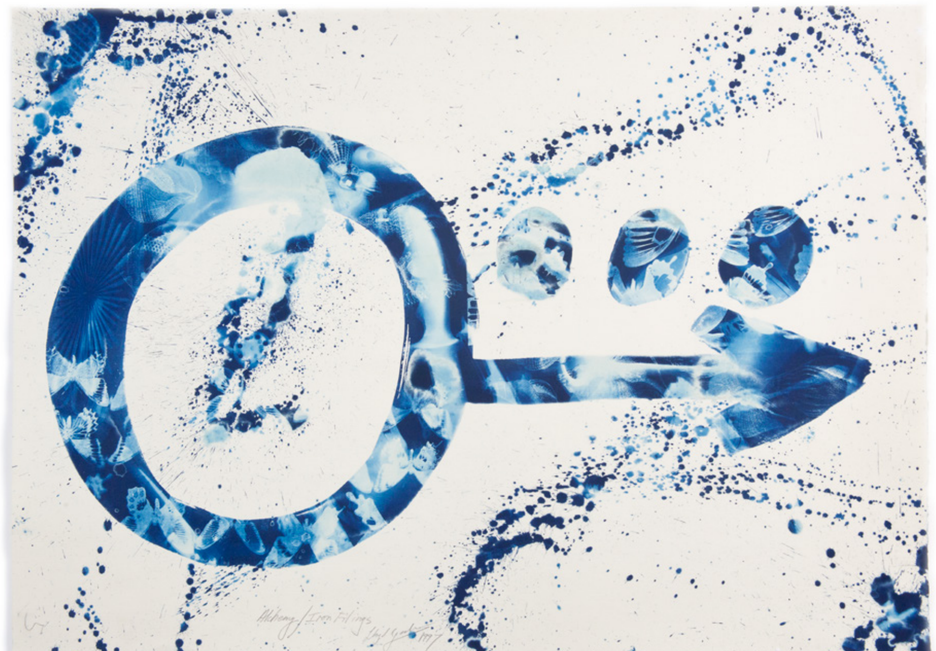
Alchemic symbol, Cinnabar - Cyanotype 840 x 600 - 1997

Alchemic symbol, Copper - Cyanotype 840 x 600 - 1997

Alchemic symbol, Soap Stone - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Compose - Cyanotype 840 x 600 - 1997

Alchemic symbol, Burnned Alum - Cyanotype 840 x 600 - 1997



Alchemic symbol, Iron Filings - Cyanotype 840 x 600 - 1997

Alchemic symbol, Gold - Cyanotype 840 x 600 - 1997

Alchemic symbol, World Spirit - Cyanotype 840 x 600 - 1997

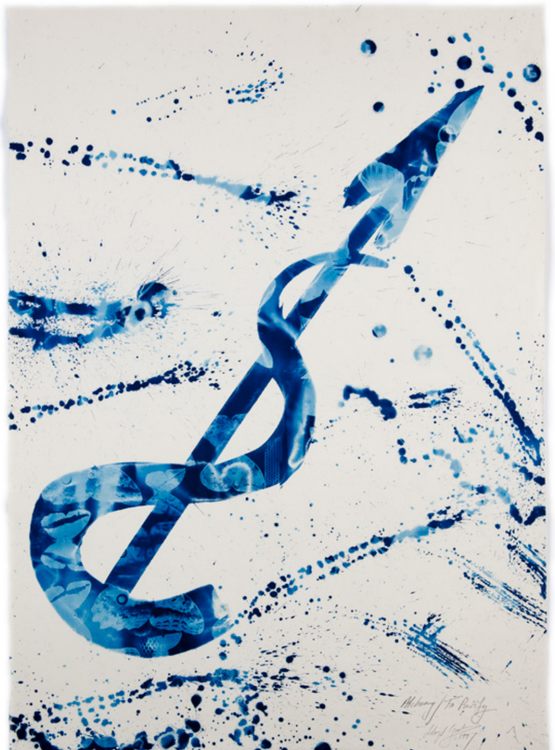
Alchemic symbol, Grille - Cyanotype 840 x 600 - 1997

Alchemic symbol, Summer - Cyanotype 840 x 600 - 1997

Alchemic symbol, White Arsenic - Cyanotype 840 x 600 - 1997

Alchemic symbol, Torrefaction of Silver - Cyanotype 840 x 600 - 1997

Alchemic symbol, Urine - Cyanotype 840 x 600 - 1997



Alchemic symbol, To Purify - Cyanotype 840 x 600 - 1997

Alchemic symbol, Essence - Cyanotype 840 x 600 - 1997

Alchemic symbol, Antomony - Cyanotype 840 x 600 - 1997

Alchemic symbol, Yellow Wax - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Sublime - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Rot - Cyanotype 840 x 600 - 1997

Alchemic symbol, Amalgamation - Cyanotype 840 x 600 - 1997

Alchemic symbol, Spirit of Silver - Cyanotype 840 x 600 - 1997

Alchemic symbol, Torrefaction of Gold - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Rot - Cyanotype 840 x 600 - 1997

Alchemic symbol, Caustic of Lime - Cyanotype 840 x 600 - 1997

Alchemic symbol, Autumn - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Boil - Cyanotype 840 x 600 - 1997

Alchemic symbol, To Boil - Cyanotype 840 x 600 - 1997

Alchemic symbol, Silver - Cyanotype 840 x 600 - 1997

In the Aporian Emulsions, the combination of chemical processes and alchemic symbols promote a sense that chemicals released into the environment are free to permeate the environment in ways that we may not quite appreciate.

Aporian Emulsions

Third layer of investigation

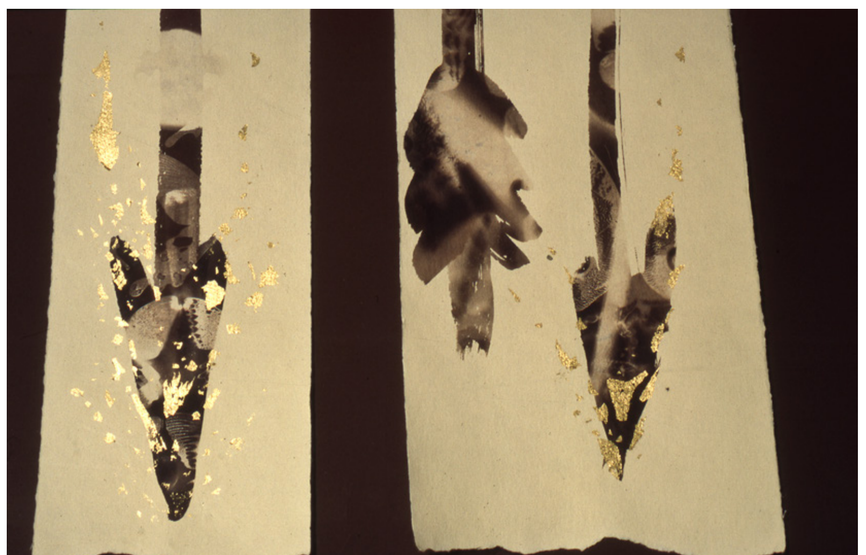
I became further concerned with how we affect the land and environment we depend upon and live on. In the early 1990s I had worked on a project with Dr Paul Butler from Manchester who had access to current data from NASSA that clearly showed CO_2 levels were climbing and the climate seemed to be altering.

I had always been drawn to Colin McCahon's *Necessary Protection* series. But where McCahon stated: 'They have to do with the days and nights in the wilderness and our constant need for help and protection". I interpreted the title as a *necessary protection* for a landscape which Rachel Carson pointed out in *Silent Spring*, we were slowly destroying.

I looked to relate how we afflict injury to the earth. The motifs of arrows, nails, screws, hypodermic needles etc. became symbols for the way we shoot and screw shafts into the strata , we inject chemicals, drive nails and crucify the organic body of James Lovelock's *Gaia*. As population grows, as lifestyles place more demands on the planet, increasingly, we pollute the atmosphere - the air we breathe, the water-ways - the liquid we ingest and clean ourselves with, the soil - the humus that grows our food, the oceans - the great body of water where most pollution flows to. The very essentials we depend upon!

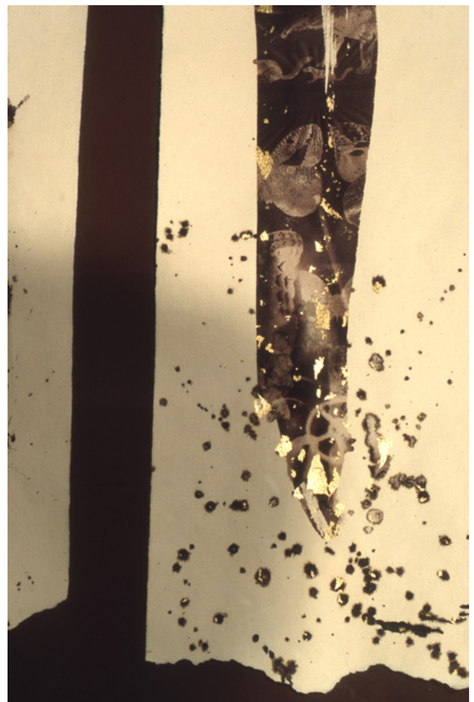
Saint Sebastians Arrows, Van Dyke Brown and applied gold leaf - 1200 x 800 - 1997

detail - *Saint Sebastians Arrows,* Van Dyke Brown and applied gold leaf - 840 x 600 - 1997



detail - *Saint Sebastians Arrows,* Van Dyke Brown and applied gold leaf - 840 x 600 - 1997

Nails of the Crucifixion, Van Dyke Brown and applied gold leaf - 1200 x 970 - 1997



detail - *Nails of the Crucifixion,* Van Dyke Brown and applied gold leaf - 1200 x 970 - 1997

These chemical processes date back to the invention of photography around the 1820s by Fox Talbot and the cyanotype by Hershel. But where the confines of the past dictated a rectangular application, in the Aporian Emulsion, the coatings break into a free form where the emulsion is selectively coated.

Artifact 08-7 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 08-5 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 08-5 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 09 - 7 - Cyanotype print 1000 x 275 - 1997

Artifact 09 - 12 - Cyanotype print 1000 x 250 - 1997

Artifact 09 - 75- Van Dyke Brown print 1000 x 275 - 1997

Artifact 09 - 12 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 09 - 11 - Cyanotype print 1000 x 250 - 1997

Artifact 08 - 42- Van Dyke Brown print 1000 x 200 - 1991

Artifact 08 - 34 - Cyanotype print 1000 x 200 - 1997

Artifact 08 - 33 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 08 - 30 - Van Dyke Brown print 1000 x 200 - 1997

Artifact 08 - 8 - Van Dyke Brown print 1000 x 170 - 1997

Artifact 08 - 9 - Van Dyke Brown print 1000 x 170 - 1997

Artifact 08 - 40 - Van Dyke Brown print 1000 x 130 - 1997

Artifact 06 - 46 - Van Dyke Brown print 830 x 85 - 1997

Artifact 06 - 50 - Cyanotype print 830 x 85 - 1997

Artifact 06 - 48 - Cyanotype print 830 x 85 - 1997

Artifact 06 - 26 - Van Dyke Brown print 830 x 85 - 1997

Artifact 06 - 25 - Cyanotype print 830 x 85 - 1997

Artifact 06 - 47 - Cyanotype print 830 x 85 - 1997

Artifact 06 - 33 - Van Dyke Brown print 830 x 85 - 1997

Artifact 06 - 31 - Van Dyke Brown print 1000 x 130 - 1997

Artifact 05 - 9 - Van Dyke Brown print 675 x 90 - 1997

Artifact 05 - 4 - Van Dyke Brown print 675 x 100 - 1997

Artifact 05 - 13 - Van Dyke Brown print 670 x 85 - 1997

Artifact 04 - 2 - Cyanotype print 570 x 80 - 1997

Artifact 06 - 57 - Cyanotype print 675 x 185 - 1997

Artifact 06 - 5 - Van Dyke Brown print 670 x 185 - 1997

Artifact 06 - 7 - Van Dyke Brown print 602 x 180 - 1997

Artifact 06 - 10 - Hand coloured Van Dyke Brown print 675 x 185 - 1997

Artifact 06 - 23 - Cyanotype print 675 x 180 - 1997

Artifact 06 - 21 - Cyanotype print 670 x 185 - 1997

Artifact 06 - 4 - Cyanotype print 670 x 180 - 1997

Artifact 06 - 8 - Van Dyke Brown print 675 x 185 - 1997

Artifact 06 - 17 - Van Dyke Brown print 675 x 185 - 1997

Artifact 04 - 34 - Cyanotype print 501 x 150 - 1997

Artifact 04 - 25 - Van Dyke Brown print 475 x 150 - 1997

Artifact 04 - 41 - Van Dyke Brown print 400 x 100 - 1997

Artifact 04 - 11 - Hand Coloured Cyanotype print 380 x 85 - 1997

Artifact 04 - 32 - Cyanotype print 525 x 100 - 1997

Artifact 04 - 39 - Van Dyke Brown print 440 x 100 - 1997

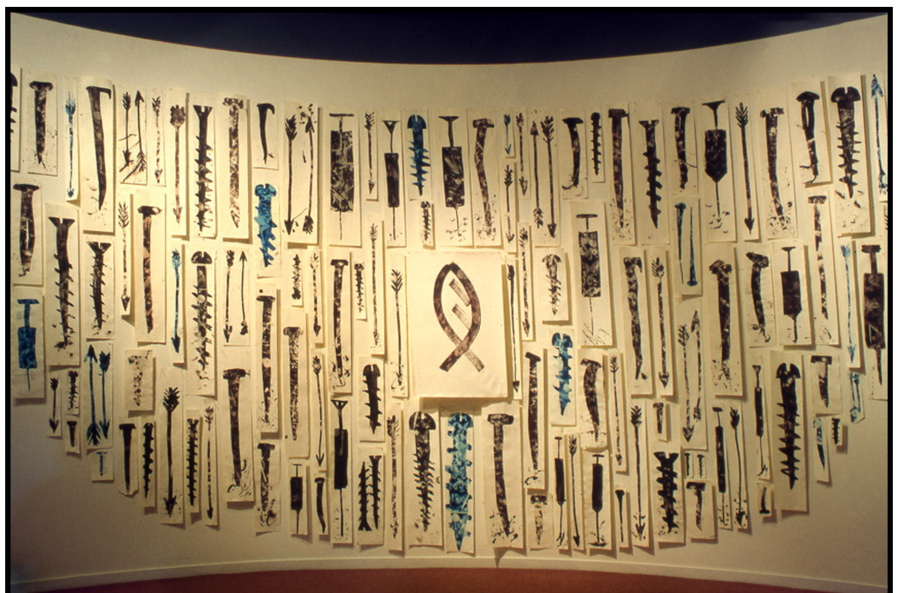
Aporian Emulsions

Gallery Installations

As though each one had been found from an ancient archaeological site, I created hundreds of these artifact cyanotype and Van Dyke Brown images; each one had an artefact number. Through Wayne Marriott, in late 1997, I was invited to exhibit the work at the Southland Museum and Art Gallery and this lead to a series of large installations of these prints.

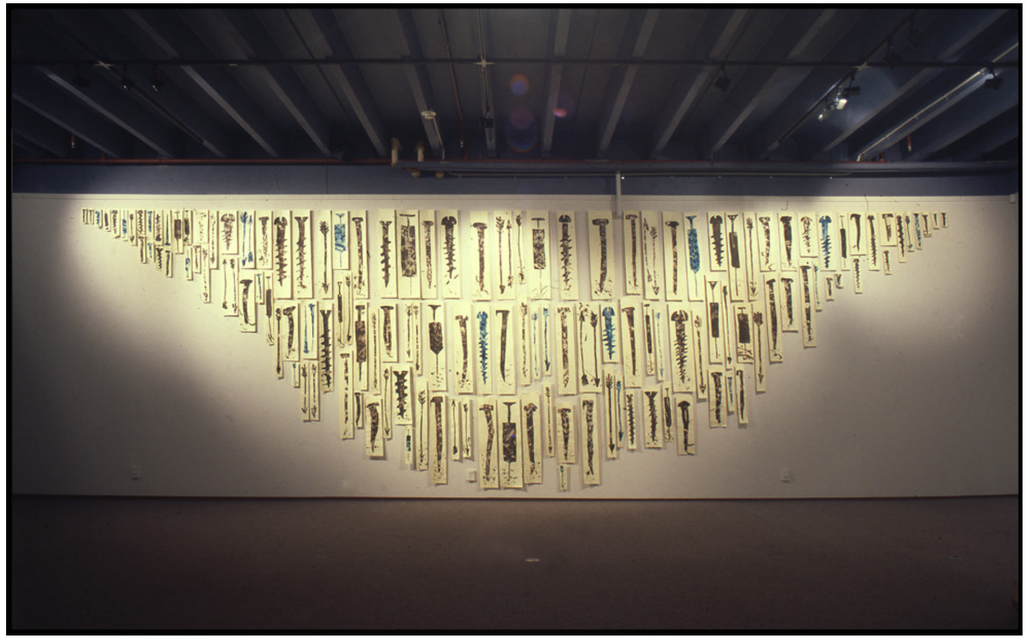
Following this the work was exhibited in 1998 at the Eastern Southand Gallery, Gore with the exhibition curated by Jim Geddes.

Warwick Smith then invited me to exhibit the work at the Forrester Gallery, Oamaru and left Belinda Jones and myself to install the work. While we began installing the work in a similar manner to Southland Museum and Art Gallery on two walls the space and particularly the ceiling called for a stronger installation. After we had installed about half the work we pulled it all down and reinstalled across the corner of the gallery space. As part of this install we also played the gallery lights on the ceiling which had similar colours to the Cyanotypes and Van Dyke Brown prints.



Artifaction - Eastern Southland Gallery, Gore, New Zealand - 1998

Alchemy - installation Southland Museum and Art Gallery - Hiho O Te Taniwha
curated by Wayne Marriott - 1997



Artifaction - installation Southland Museum and Art Gallery - Hiho O Te Taniwha
curated by Wayne Marriott - 1997

detail - *Alchemy* - installation Southland Museum and Art Gallery - Hiho O Te Taniwha
curated by Wayne Marriott - 1997

detail - *Artifaction* - installation Southland Museum and Art Gallery - Hiho O Te Taniwha
curated by Wayne Marriott - 1997

Artifaction - Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

detail - *Artifaction* - Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

detail - *Artifact* - Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

detail - *Artifaction* - Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

Alchemy - Installation Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

detail - *Alchemy* - Installation Eastern Southland Gallery, Gore, New Zealand
Curated by Jim Geddes - 1998

Artifiction - Installation of alternative process photograms, Cyanoptypes & Van Dyke Brown prints
Forrester Gallery, Oamaru, New Zealand - Curated by Belinda Jones - 1998

Totem - Installation of alternative process photograms, Cyanoptypes & Van Dyke Brown prints
Forrester Gallery, Oamaru, New Zealand - Curated by Belinda Jones - 1998

detail - *Artifiction* - Installation of alternative process photograms, Cyanoptypes & Van Dyke Brown prints
Forrester Gallery, Oamaru, New Zealand - Curated by Belinda Jones - 1998

detail - *Artifiction* - Installation of alternative process photograms, Cyanoptypes & Van Dyke Brown prints
Forrester Gallery, Oamaru, New Zealand - Curated by Belinda Jones - 1998

Brown Angel, St Sebastian's Wings - Viscom 9 Gallery RMIT, Melbourne, Australia
Curated by Alex Syndikas - 2003

Brown Angel , St Sebastian's Wings was installed in Viscom 9 Gallery RMIT, Melbourne, 2003 as part of the conference From NIEPCE to NOW.. a survey of Alternative processes. RMIT University School of Creative Media where Lloyd was the keynote speaker

Lisa Clunnie a past student of Lloyd's who was in Melbourne and Alex Syndakis helping to install the many prints

New Zealand poet, Hone Tuwhare reading his powerful poems at the opening of Aporian Emulsions Eastern Southland Gallery Gore, 1998

The day after the opening of Aporian Emulsions at the Eastern Southland Gallery Gore, we had a lunch at Natalie Dolamore's. Natalie had gone to great trouble to cook for us, but all Hone wanted was fish and chips. It took sometime to work out who and how to tell Natalie. In the end Hone won and it was fish and chips for everyone. 1998

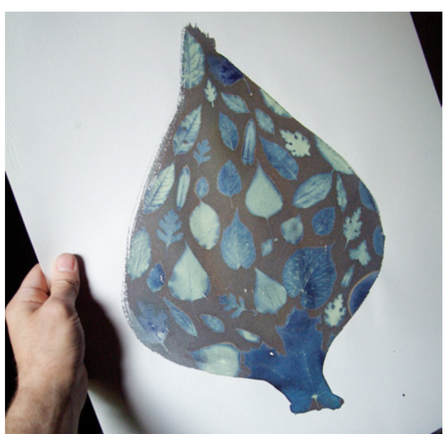
Left to right, Lloyd, John Dewes-Hodgson, Natalie Dolamore, Hone Tuwhare, Jim Geddes, Marilynn Webb, Barry Cleavin, Anna Marcich, Sue Dewes-Hodgson, Sue Wilson.

Aporian Emulsions

Recipes & Process

the photographs show the making of a print from the LEAF - light impressions - Impressions de Lumière series, during Lloyd's residency at L'Arbre de Vie / Chateau de Blacons, France - 2007

The liquid cyanotype photo- sensitive emulsion is painted on the paper in the shape of the leaf and the leaves from local trees are laid like a collage on top of this with a sheet of glass placed on top to hold the leaves in place.



After the exposure to the sun the glass and leaves are removed to reveal the light formed impression of the leaves on the paper - this is then washed out in water to remove the areas of the cyanotype emulsion not exposed to the sun.

Cyanotype - Recipe & Process

There are many different recipes for the Cyanotype but one seems to be definitive. The Cyanotype process yields a distinctive metallic blue on the paper base. It is also ideally suited to printing on a fabric such as washed cotton or linen When laundering garments printed with Cyanotype, treat as a delicate fabric. As the negative is contact printed in sunlight the image will be the same size as the neg.

Prepare the two stock solutions and store separately in brown small bottles. Stored this way they will keep for approximately 6 weeks. Gently shake before use and mix equal parts.

SOLUTION A:
Ammonium Citrate of Iron or Ammonium Ferric Citrate (Green Scales or Powder) Ammonium Citrate of Iron or Ammonium Ferric Citrate (Green Scales or Powder) (Brown Powder will work but appears to react slower)
GPR (98%) grade of purity is adequate for all chemicals

SOLUTION B:
Potassium Ferricyanide (not ferrocyanide)
Occasional some chemicals may be ladled in a foreign language

(analar quality is more refined and also more expensive - it is not necessary GPR (98%) grade of purity is adequate for all chemicals)

Before use, read Health hazards)

Simple Cyanotype
Solution A - 25grams : Mix with distilled water to make 125ml and store in a brown glass bottle
Solution B - 17 grams : Mix with distilled water to make 125ml and store in a brown glass bottle

Alternative recipe
Solution A - 68 grams
Oxalic acid - 1.3gram : Mix with distilled water to make 250ml and store in a brown glass bottle
Solution B - 23 grams : Mix with distilled water to make 250ml and store in a brown glass bottle

Store solutions A & B in separate bottles until ready to use.

The images show the making of the large central piece for Brown Angel, St Sebastian's Wings - Viscom 9 Gallery RMIT, Melbourne, 2003

The sheets of Van Dyke Brown pre-sensitised paper are laid out on a firm base.

The images show the making of the large central piece for Brown Angel, St Sebastian's Wings - Viscom 9 Gallery RMIT, Melbourne, 2003

The large negative, created from many photo-copied acetate sheets of A3 are laid on top of this in subdued light.

The images show the making of the large central piece for Brown Angel, St Sebastian's Wings - Viscom 9 Gallery RMIT, Melbourne, 2003

A sheet of glass is then laid on top to create a contact between the negative and the sensitised paper. Jeweller , Andrew Last and Lloyd carry the board outside for the exposure.

Method: - Mixing the Chemicals

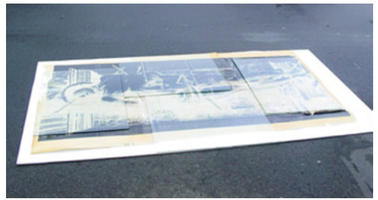
Step 1.
When you are ready to coat your paper, combine equal amounts of solutions A and B under subdued light such as a red or yellow safe light. For optimum results, try to mix about the amount needed during one day.

Step 2.
Brush the mixed emulsion on the paper or other surface taking care to apply the coating reasonably thickly as possible but not so thickly that it would drip when hung to dry. It is important that a brush is used without a metal ferrule as this will contaminate the mixture.

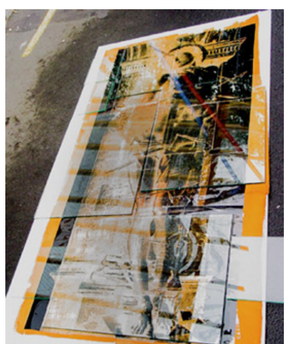
If you have to use a metal ferrule make sure that you only dip the end of the brush in the mixture, the metal ferrule can also be covered with plastic tape. While they are more expensive, brushes can also be obtained that have a stainless steel ferrule and these seem to have no effect on the mixture.

Step 3.
Dry the paper in darkness or subdued light and keep in darkness until use. If you are coating a great number of sheets a drying rack is ideal, but be careful that there is no wet emulsion or contaminants on the rack where you place the paper. A hair dryer can be used to speed the drying up. Some manuals recommend using the sensitized paper with in 12 hrs. I once forgot about some paper in this state and used it after about 3 weeks without any great difference. This did not seem to effect the sensitivity: The only effect was that the tonal quality might have been a little softer. Place the paper in a light tight drier, or hang up to dry in darkness. Once dry it is best to use the prepared paper within 12 hours.

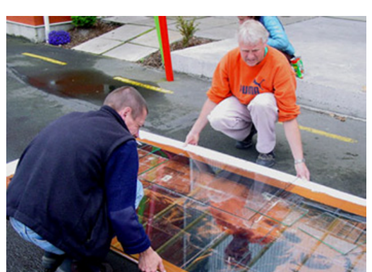
Step 4.
Expose the sensitized paper to sunlight with the negative laid in contact on top of the emulsion and a thick piece of glass on top to give better contact. (For perfect contact, a more sophisticated means of achieving this are discussed in various books on the subject). The exact exposure time will vary with sunlight conditions and experiments might be necessary to obtain good results, in bright sun the time will be about 20 mins. Finished exposure is indicated when the image appears to be one stop over exposed.



This is then set out-doors and exposed to the UV of the sun. The exposure time varies - for full sun this might take 10-20 minutes for an overcast sky, as on this day the exposure may take an hour or longer. Not the colour of the emulsion is a light tan.



During the exposure the emulsion will turn a darker brown.



At the end of the exposure the board with paper, negs and glass is returned inside. Lloyd and Peter Fitzpatrick of ANU prepare to lift the board and take it indoors.

Step 5.
Develop under subdued white light in a try of running water until all yellow races from the sensitizing solution have disappeared. For a more intense blue dissolve a few drops of Hydrochloric Acid in the wash tray before inserting paper, or after development in water, soak in a tray of water with a few drops of ammonia for a about 5-10 seconds

Step 6.
Wash paper for another 10mins in running water and dry either by hanging up or tacking to a board with gummed tape. The later will avoid curling up but the print will need to be carefully cut out from the gummed surround with a sharp blade. While it is best to wipe all surfaces when the chemical mixture is wet, any marks left by the emulsion on working surfaces that have dried can be cleaned up relatively easily with water.

Van Dyke Brown Recipe & Process

Here are two different recipes for this process, one that gives a dark brown image the other that gives a sepia brown image.

Recipe A Sepia brown: Ammonium Citrate of Iron or Ammonium Ferric Citrate - 25 grams
(Develop this mixture in a 1% borax solution) (Green Scales or Powder - Brown Powder will work but will is less sensitive to light)

Tartaric Acid - 4 grams
Silver Nitrate - 10 grams
Water to make 300ml

Recipe B Dark brown: Ammonium Citrate of Iron or Ammonium Ferric Citrate - 30 grams
Tartaric Acid - 5 grams
Silver Nitrate - 10 grams
Water to make 300ml

Recipe C Ammonium Citrate of Iron or Ammonium Ferric Citrate - 18 grams
Tartaric Acid - 3 grams
Silver Nitrate - 7.5 grams
Water to make 200ml

The large negative is carefully removed.

This reveals the exposed paper below

The sheets are carefully removed from the board and taken to the darkroom for processing.

Step 1.

In subdued light or yellow or red safe light: Mix each of the chemicals separately in about 50ml of distilled water. Once mixed, slowly combine Ammonium Citrate of Iron solution Tartaric Acid solution and lastly slowly add in Silver Nitrate solution. Top the solution up with distilled water to make 200ml. This solution will last for a few months stored in dark brown bottles in a dark place. While the solution can be used immediately, there is some argument that the solution need 24 to 48 hours to ripen.

Step 2.

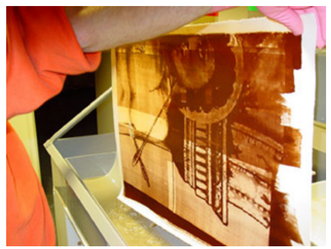
In very subdued or a yellow or red safe light, coat the surface of the paper with the solution. Use of a clean brush without metallic ferrule is recommended. Make sure that the emulsion is stirred before use. (Some recipes suggest coating the paper twice allowing for drying between coats, but I have found that if you are careful in the application one coat seems to work fine). During storage the iron and silver can tend to separate out at different levels in the liquid.

Some photographers recommend storing each of the stock solutions separately, but as the mixture matures giving a deeper richer tone with age, it is recommended to leave for at least a day in a combined state. With combined solutions, make sure you gently agitate the solution to mix it before use; failure to do so can result in uneven coating of silver and iron in various areas. While this can produce some interesting effects, they may not be those you desired. Use gloves and other protective equipment as the mixture and stain skin.

Applying the emulsion too thickly can create a situation where the top layer of the emulsion becomes dark on exposure and blocks the light from reaching the lower layer, so that in the developing stage both layers wash away. Experiment with emulsion thickness - a thin coat can produce surprisingly delicate tones. Thinning the emulsion down slightly can assist with this. Experiment with application techniques, foam brushes can be used, foam rollers can give and even coating. Abbreviations can be incorporated as part of the work. Be aware that some papers are fragile and may need taped down to a board for coating and processing, also some papers may need sizing to stop the emulsion soaking into the fibres of the paper.

For the Van Dyke Brown emulsion this involves washing in water, a soak in a weak solution of fixer, and a final wash

For the Van Dyke Brown emulsion this involves washing in water, where the unexposed emilsion is washed off the paper, a soak in a weak solution of fixer, and a final wash



The processed print is drained and hung to dry. The prints have a rich golden brown colour when wet, but this dries to a dark brown.

Step 3.
Dry the paper in darkness or subdued light and keep in darkness until use. If you are coating a great number of sheets a drying rack is ideal, but be careful that there is no wet emulsion or contaminants on the rack where you place the paper. A hair dryer can be used to speed the drying up. Some manuals recommend using the sensitised paper with in 12 hrs. I once forgot about some paper in this state and used it after about 3 weeks without any great difference. This did not seem to effect the sensitivity: The only effect was that the tonal quality might have been a little softer.

Step 4.
While many manuals suggest contact print for about 10mins in bright sunlight, this can be quite variable. It is actually UV that is exposing the image, and this can vary considerably from location to location and also is effected by the seasons. For some images exposed to strong mid day sunlight in New Zealand, which has a high UV level, during mid summer the correct exposure can be as short as 2minutes. However during an overcast day in winter the exposure may be as long as 3 hours.

Often this is done by laying the negative emulsion side down, (or proxy negative - transparent, acetate, objects for a photogram) onto the emulsion coated side of the paper. If it is a negative or flat transparency a sheet of glass about 4 -5 mm thick is placed on top of this to hold everything in good contact. Special contact printing frames can be made that hold the paper, negative and glass under pressure. The emulsion is about twice as fast as the Cyanotype. Correct exposure is indicated when details are visible in shadows only and mid-tones begin to show faintly.

Additional Exposure Information:
Usually a negative is placed on the dry coated paper or base with a piece of glass on top of this to keep it flat. Variations on this might include: · Taping the edges of the paper down onto a board will hold it place for the exposure. The print can also be processed, including drying, taped down which will make sure the print dries flat. This method is particularly effective for multiple exposures. Make sure the board has been sealed with sanding sealer to stop any chemicals migrating from the board to the paper during processing, or use a plastic sheet. Although the print might have to be cut from the board when dry, wettable package tape works well.

A contact print frame keeps the negative evenly in contact with the paper during exposure. Hinged wood and glass print frames are available commercially, or one could be made and are convenient to use. Make sure the glass is of a reasonable thickness, (4mm- 6mm depending on size) as the weight will hold the negative in firm contact and also be less prone to breakage. If you can get access to one, commercial plate makers and blueprint machines have rollers or vacuum systems that keep the negative evenly in contact with the paper. Sunlight, ultraviolet lamp, arc light, commercial plate maker, sunlamp or other ultraviolet light sources may be used. Exposure varies depending on lighting, negatives, coating techniques and other factors. As a starting point, try 10 minutes in bright sun or 75 units in violet arc light to start. The print will turn yellowish brown or brown when exposed. Shorter exposures result in orangey-brown final prints; longer exposures result in dark brown prints. Any of these may give the final results you might want, so experiment and make test prints to find the correct exposure.

Tape negatives to three dimensional objects coated with emulsion that won't fit under glass for exposure. After the exposure protect the paper from stray UV as this will fog the image and process as soon as possible.

For the sepia recipe develop in a 1% borax solution.

Step 5.
In subdued light or safe light, wash in running water for 5mins the image will appear fully in a yellow-brown tone.

Make sure that the soluble emulsion is washed completely away and is not left on the surface of the paper to reset of the surface.

(However, I have deliberately used this aberration for some prints)

Additional Development Information:
Immerse exposed print in tray with running water or use agitation to bring fresh water over the surface of the print for about 5 minutes, or until image has finished developing up and water running over print is clear, not milky or yellowish.

This can be done in room light.

Do not just place the print in the water and leave it there for some time; stay with the process. The image will turn reddish brown or darker brown in water.

Handle prints carefully while wet as the brown image can be partially rubbed off. Like any photographic process temperature can also play a part and working with a wash between 15 -20°C will give consistent results.

Step 6. Fix the print in a 5% solution of Sodium Thiosulphate (Before use, read Health hazards) Normal Paper fixer for about 3-4min.

Before immersion, the image colour is a rich light brown colour, however this will quickly turn dark brown and highlights will brighten. Note the colour of the image before placement in the fixing solution. There seems to be no way of keeping the print in a stable form with this light brown colour. Do not leave too long in this fix, as it will begin to bleach. Because this is a weak solution of fixer remember to replace often.

Additional Fixing Information:
Fix in fixer with agitation for about 5 minutes. Image will turn darker and to a colder brown. If the image begins to fade (bleach), the fixer is too strong, or the print has been left in the fixer too long. Use a 5% solution of Sodium Thiosulphate (Normal Paper fixer) for about 3-4min. Because this is a weak solution of fixer it becomes exhausted quickly, so remember to replace often. Two fixer baths can be used with the print placed in each for half the time.

Step 7.
Wash print in running warm water as for normal photographic prints for about 20 mins. to an hour. A bath of Hypo clear can be used to speed up the washing. Depending on the nature of the paper, it can become fragile and tear or break up when soaked for a long period and this is particularly so with larger sheets of paper. Delicate papers can be taped down onto a baseboard for processing.

While it is best to wipe all surfaces when the chemical mixture is wet, any marks left by the emulsion on working surfaces that have dried can be cleaned up relatively easily with water. Tap water may be used for the wash, but use distilled water for best results.

Step 8.
Hung up to dry with a clothes peg as for any photographic print, or lay flat to dry. Larger sheets of paper are heavy and can tear or buckle significantly when drying. With large sheets I tend to hold the paper up in a curved cradle to give it support until all the excess water has run off before hanging up. If you use 3 or 4 pegs to hang a large work keep and eye on it as it dries to readjust the pegs. If the work is left, it may shrink as it dries and end up with a winkle or pucker.

NOTES: · Mix small amounts first (about 20 ml or 1/2 oz, for example). Then mix more sensitizer as needed. · The powdered chemicals keep longer than the stock solutions. · Stock solutions will keep several months or longer. · Other recipes with different proportions exist; stronger or more dilute solutions may work better for specific situations. 20 ml sensitizer solution makes 5-10 8"x10" prints, depending upon coating techniques, absorbency of paper, brushes, and other variables.

The finished work - after *St. Sebastian* by Andrea Mantegna, 1456–1459
This was the large central piece of ***Brown Angel***, ***St Sebastian's Wings*** 6 sheets of paper 1010 x 670 each.
This work was installed in Viscom 9 Gallery RMIT, Melbourne, 2003 as part of the conference From *NIEPCE to NOW.. a survey of Alternative processes.*

Lloyd Godman

Lloyd Godman was lecturer in charge of photography at the School of Art. Otago Polytechnic, Dunedin, New Zealand from 1986 until 2005 where he established a department that was highly regarded for its explorative approach to photography, and in particular alternative photographic processes. From 1989, his art practice has centered on the phenomenon of light and a wide range of photosensitive emulsions (including plants and photosynthesis) and camerless photography through the use of photograms. In Aproian Emulsions he utilizes alternative photo-emulsions like Cyanotype and Van Dyke Brown in a plastic manner, where the confines of the rectangle are broken and the liquid flows as marks and motifs on the paper. Rather than a technical fault, aberrations in the process are embraced as an aesthetic device that strengthens the concept of the work.

It is doubtful if Australasia has a more protean, visionary and ecologically committed artist than Lloyd Godman. Born in Dunedin, New Zealand in1952, and now living in Melbourne, Australia, he has been exploring environmental issues through photography (in combination with sculpture, painting and installations) since the early 1980s. He began taking more or less traditional landscape pictures in the late 1960s, but exposure to iconoclastic artists like Man Ray, Kurt Schwitters, and Joseph Beuys inspired him to begin chipping at the edges of photography in the interest of breaking down boundaries.

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