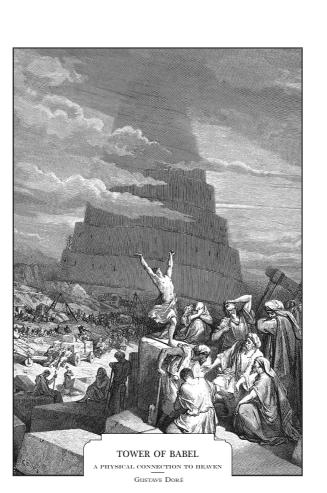
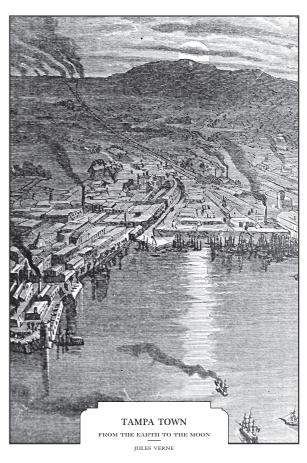


THE COLUMBED SPACE CEN.
FROM THE EASTER TO THE MOON, THE REST OF EASTER HE COLOR THE STREET TO THE BALTHORIS CAN CLIE, A
POOR JAMESICA CITE. WAS SOCIETY OF ELEPHANTHEOREMY, NO THEIR STREETS TO BEEN ANDORROSS NAT-PAIN



THE CONVENION OF TONCIES 1865; BEENC TO THE STREE, A UNITED BEHAVIOT OF THE CONSEQUENCE OF THE CHEAT FLOOR, OF MAJOC A SPICEL MCC ADMICKATING FROM THE BAST, CARE TO THE LADD OF SERVAC. THESE THEY AZRED TO BE ILD A CITY AND TOWER



A POP UP DEDICTEM, CITY

SPOND HELL IN "TAREN TORN", FLOREN E CORREN A THE HIT FOR THE CROSSING CONSTRUCTION, PREDATIVE, KENNEUT

SPACE CENTER FLACISHENT IN FLOREN ET MANDE FOR ON MARE, THE CASE CLEE MANDE HERE AND STAFF THE

CONSTRUCTION OF THE COLUMNED SPACE CROSSIN, WHEN HEREFELD THE SECRETARY OF A 900-POST-OHEF (EV) HE AND

## CHAPTER I

LET ME TELL YOU ABOUT PLATINUM CITY.

CAN THE TRAVELLER IMAGINE A POST SCARCITY WORLD ECONOMY, WHERE THE RESOURCES OF THE UNIVERSE HAVE BEEN UNLOCKED BY BREATHTAKING FEATS OF ENGINEERING ENABLED BY EARTH SHAKING BREAKTHROUGHS IN MATERIAL TECHNOLOGIES?

BORN AT THE ADVENT OF THE WORLDS FIRST POST-HUMAN INDUSTRY OF ASTEROID MINING,

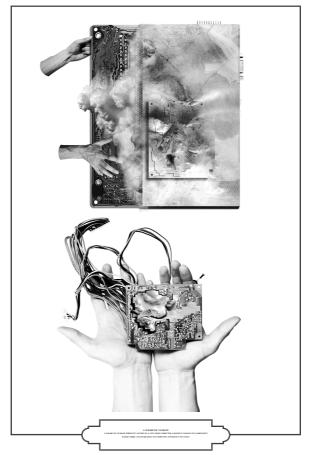
SAT PROUDLY UPON THE SURFACE OF THE ROSETTA ASTEROID LOCATED IN THE DEPTHS OF A MAGNIFICENT ASTEROID CRATER AT THE FOOT OF THE 1,700-METER HIGH PUTORAN MOUNTAINS LIES PLATINUM CITY!

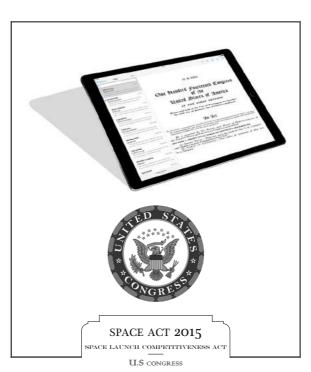
A POP UP INDUSTRIAL CITY THAT EMBODIES BIO-MECHANICAL CHARACTERS WITHIN ITS URBAN FABRIC, PLATINUM CITY EXISTS SOMEWHERE BETWEEN A PRISTINELY MANICURED GARDEN AND A WELL-OILED MACHINE.

Inspired by the narrative text of Jules Verne's pop up 'Columbiad cannon' manufacturing city in his novel "From the Earth to the Moon" and the recent "Space Act of 2015" that enables the legal exploitation of space resources, the design thesis extrapolates near future technologies and urban ideas in the context of Peter Baufu's 'Eight Great Future [post-human] Transformations Of Architecture' into programmatic, tectonic and environmental agendas for Platinum City; the worlds first post-human city.

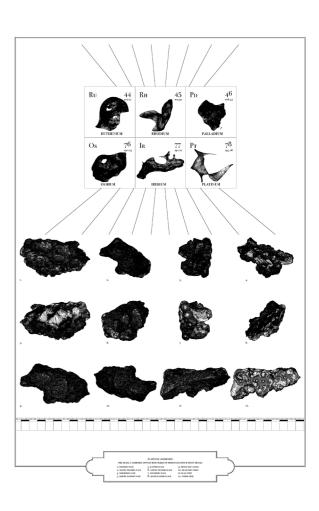












#### CHAPTER II

PLATINUM CITY IS AN INDUSTRIAL PLATINUM MINING OUTPOST IN OUTER SPACE ON THE SURFACE OF THE  $\overline{O}$  GREADE A ROSETTA ASTEROID IN HIGH LUNAR ORBIT AROUND OUR MOON.

As the world embraces the electric car and hand held smart devices - Platinum City addresses the increased need of the world's large corporations to support the growth of their invested interests and industries on earth by obtaining ever larger quantities of platinum group metals for use in their Hydrogen fuel cell products that rely on a platinum catalyst to enable them to generate electrical power quietly and efficiently, without pollution.

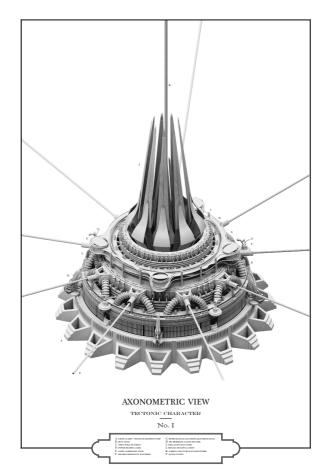
ORE GRADE A ASTEROIDS CONTAIN HIGH YIELDS OF PRECIOUS PLATINUM GROUP METALS — WITH ONE TYPICAL ORE GRADE A ASTEROID CONTAINING MORE PLATINUM AT ITS CORE THAN HAS EVER BEEN MINED ON EARTH. BY PULLING ONE OF THESE PLATINUM RICH ASTEROIDS FROM THE MAIN ASTEROID BELT 329,000,000 km from the Earth Into HIGH LUNAR ORBIT OF THE MOON IT CAN BE MINED WITH TECHNOLOGIES KNOWN TO HUMANS EVEN TODAY.

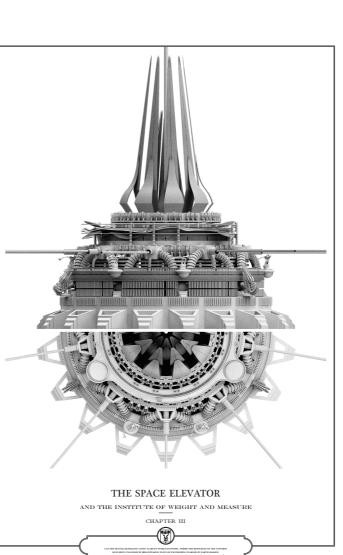
The worlds first self-sufficient post-human space colony is a city fathomed as an organic computer, with its grandiose, drone crafted asteroid recolith architectures engorged on wet technologies grown over time and anchored to the platinum rich Rosetta Asteroid by a vast network of bio-mechanical tendril like roots.

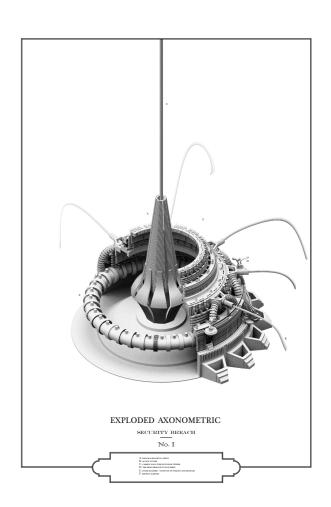
THE CITY'S HYDROGEN FUEL CELL INFRASTRUCTURE RELIES ON A DUEL SYSTEM OF CHARGING ITS CITY CELLS BY BOTH HARNESSING THE POWER OF THE SUN WHEN GRACED BY THE TOUCH OF IT'S RAYS AND IN IT'S ABSENCE HARVESTING THE MACIC OF THE ELECTROMAGNETIC FIELD CONTAINED WITHIN THE GENETICALLY MODIFIED ELECTRIC EELS THAT LURK IN THE MURKY DEPTHS OF ITS SWAMPY CHARGED LANDSCAPES.











## CHAPTER III

THE CITY MEMBRANE ACTS AS BOTH A PROTECTIVE CANOPY TO BOTH THE CITY BELOW AND FRACILE SPACE ELEVATOR TETHER ABOVE AS WELL AS A CLIMATE REGULATOR, ENVELOPING THE ENTIRE CITY WITH A KINETIC AND MOBILE STRUCTURE.

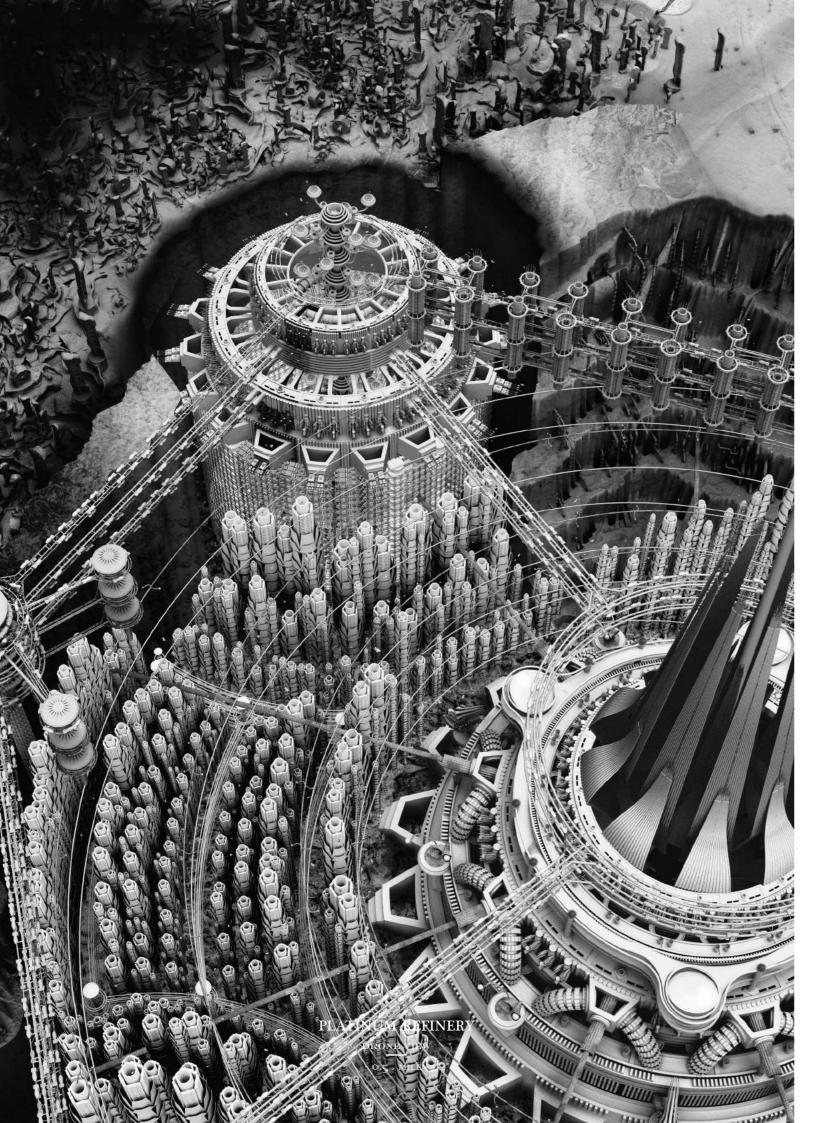
'THE CITY MEMBRANE' IS COMPRISED OF MEMBRANE PIXELS WITH EACH PIXEL EQUATING TO A SINGLE 'TERAMITE'; WHICH ARE PROGRAMMABLE AERIAL DRONES THAT FORM THE TERAMITE SWARM.

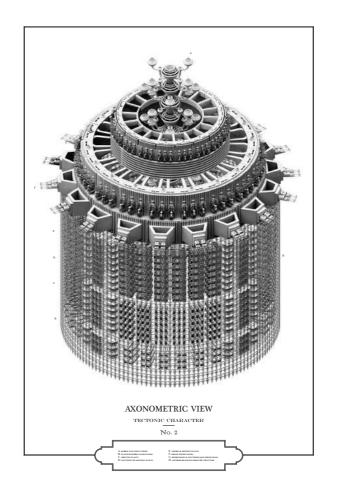
THESE ANIMATED PIXELS ARE COMMANDED REMOTELY
THROUGH UTILISATION OF SWARM TECHNOLOGIES IN ORDER TO
CARRY OUT A NUMBER OF ROLES CRUCIAL TO THE SUCCESS OF
PLATINUM CITY.

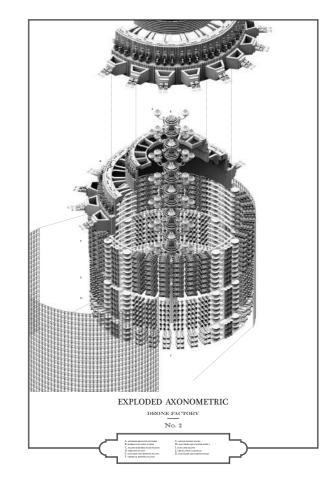
In the drone mines of platinum city, Platinum ore is extracted by these robotic workers piece by piece in half a meter by half a meter 'bores' from the surface of the bio-mechanical landscape.

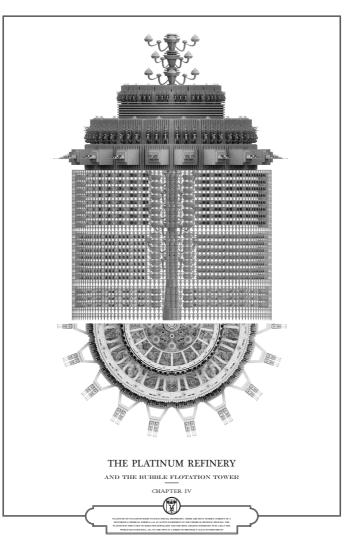
AT THE NORTHERN POINT, WHERE THE MOUNTAIN SPURS SLOPE INTO THE PLAIN, BETWEEN TWO RANGES OF BLEAK HILLS LIES WHAT UNTIL 2040 WAS CALLED THE 'PLATINUM PLAIN', WITH ITS TOPSOIL IMPREGNATED WITH A TREASURE TROVE OF PLATINUM GROUP METALS, BUT WHAT IS NOW CALLED THE PLATINUM FARM.











#### CHAPTER IV

JUST IMAGINE A PLATEAU OF SEVENTEEN OR EIGHTEEN SQUARE MILES, THE ICE AND SOIL GLINTING AND STREWN WITH TREASURES, AND ALTOGETHER AS ARID AND DESOLATE AS THE PERMAFROST ARCTIC CIRCLE PLAINS.

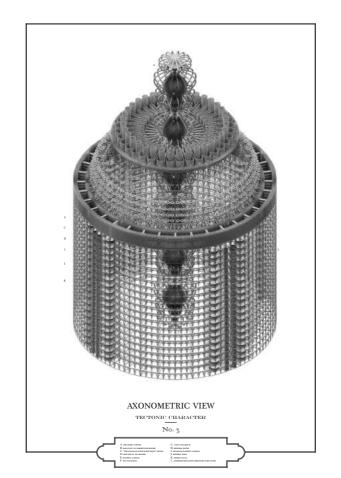
But, man has brought a wonderful amount of energy and vigour to bear upon it; An extremophile, bio-mechanical landscape creeps across the plain, its dense, probing cellulose root structure utilised as a phytoremediation mining machine, an organic model capable of leaching treasures from the ground. Bio-mechanical trees act as hyper accumulators, tall, fast growing and easy to harvest the Platinum treasure that is displayed as urban jewellery on its surface.

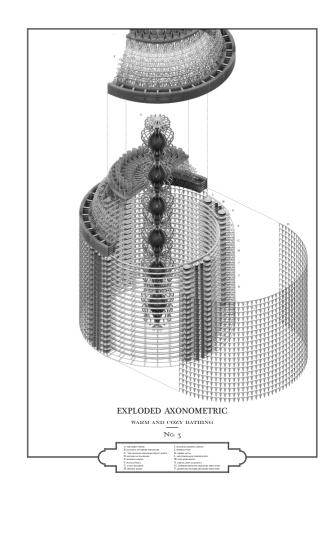
Drone swarms act as environmental guardians, simultaneously stimulating and cutting back growth of the bio forms, before harvesting the cuttings in order to extract the raw materials in the refineries. Optimised also as a terraforming machine, this cellulose-based biomaterial has both structural and thermally insulating qualities when concentrated at different densities.

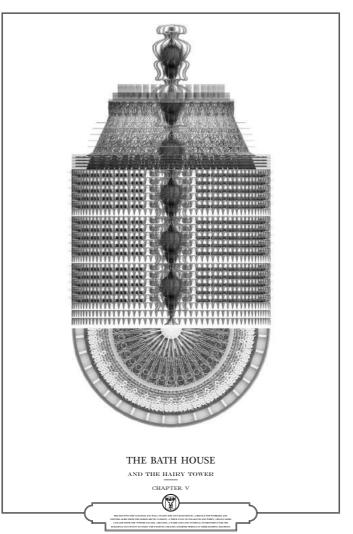
MEASURABLE AND QUANTIFIABLE CHARACTERISTICS IN ITS BIOLOGICAL MAKEUP ALLOW FOR A SYSTEM OF INTERVENTION BY THE CITY ARCHITECT TO DICTATE DESIGNED STRATEGIC MATERIAL CHARACTERISTICS AND GROWTH PATTERNS THROUGH A SERIES OF 3D PRINTED ARMATURE STRUCTURES ON WHICH THE BIO-MECHANICAL LANDSCAPE GROWS UPON.











# CHAPTER V

The city's drone swarm teramite army is commanded remotely, capable of transforming processed asteroid regolith; a waste product of the platinum refining process into rugged yet intricate 3D printed geometries reminiscent of the hollow closed cell structure of bird bone.

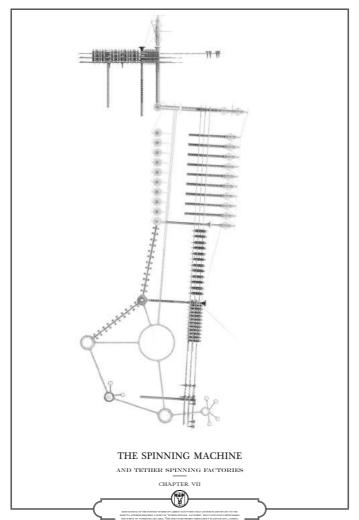
THESE INTRICATE AND COMPLEX ARMATURE STRUCTURES ARE RICH IN KEY MINERAL ENZYMES, THAT CATALYZE EXPLOSIVE GROWTH IN THE BIO-MATERIAL — A MATERIAL CAPABLE OF PROVIDING A STRONG AND DENSE STRUCTURAL PLINTH FOUNDATION, OR ENGULFING A BUILDING IN A SOFT AND WOOLLY THERMALLY INSULATING COAT DEPENDING ON THE BIO- MECHANICAL GENETIC INTERVENTION MADE BY THE TERAMITE DRONE.

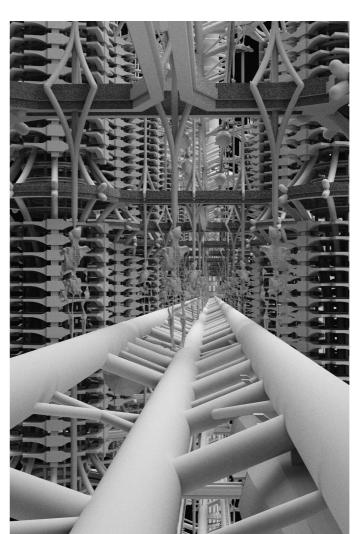
A HARMONY BETWEEN THE ARTIFICIAL BIOLOGICAL FORMS OF THE LANDSCAPE AND THE ADVANCED TECHNOLOGY OF THE BUILDING IS ACHIEVED. THE HOLLOW CLOSED CELL STRUCTURES CONSTRUCTED OF ASTEROID ROCK PARTICULATE COMBINED WITH THE MORE FLEXIBLE AND ELASTIC CELLULOSE BASED BIO-MATERIAL PROVIDES A COMBINATION OF STRENGTH AND WEIGHT TO A STRUCTURE NOT UNLIKE STEEL REINFORCED CONCRETE, PERFECTLY SUITED TO ANCHORING A STRUCTURE ON SINUOUS STILTS TO THE ASTEROID WITH DEEP AND STRONG PROBING ROUTE STRUCTURES.

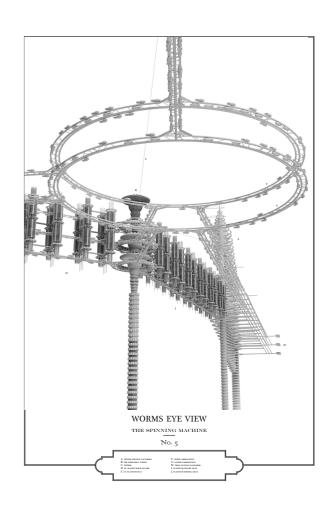
THE DRONE SWARM ACTS AS A MOBILE ARRAY OF 3D PRINTING NOZZLES, DEXTEROUSLY APPLYING A SCAFFOLDING MATERIAL COMPOSED OF A BINDING SOLUTION RICH IN MINERAL ENZYMES MIXED WITH GROUND ASTEROID PARTICULATE - A WASTE PRODUCT OF THE ASTEROID PLATINUM REFINING PROCESS.











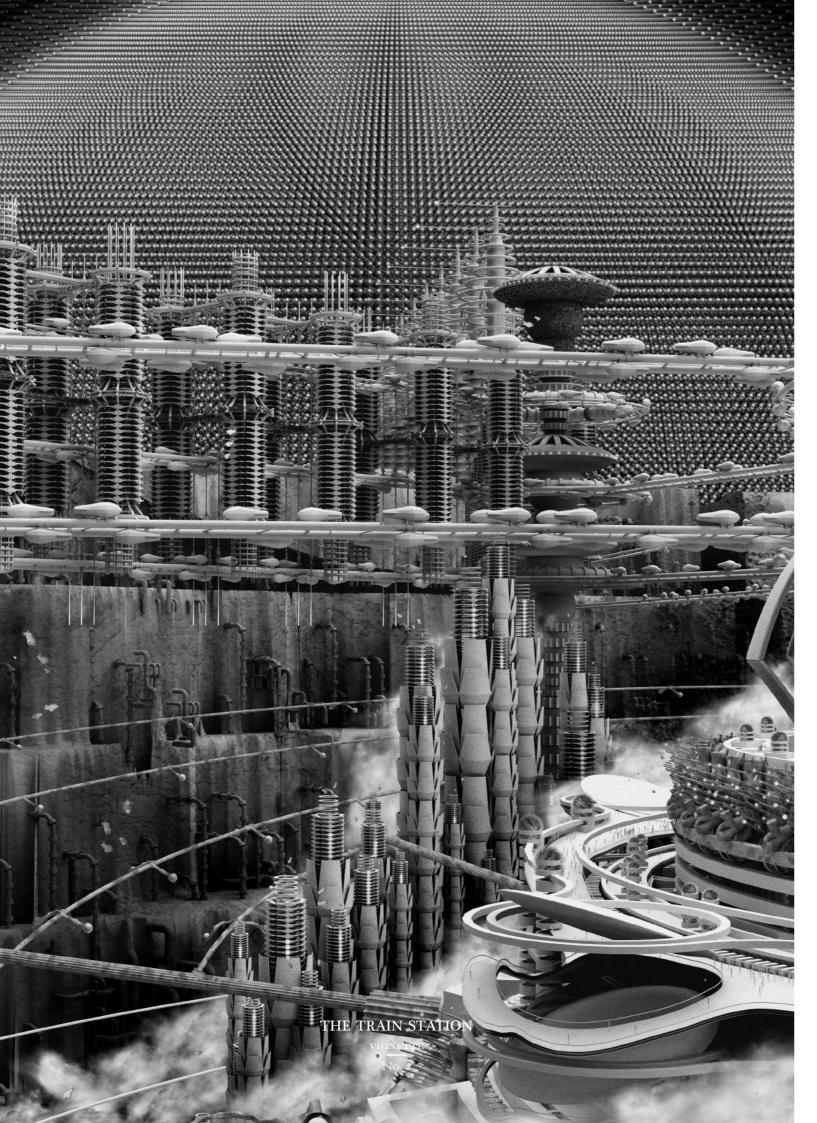
## CHAPTER VI

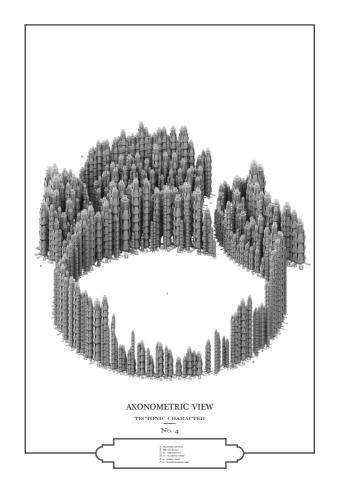
A FURTHER COCKTAIL OF MINERAL ENZYMES AND BINDING SALTS ARE APPLIED TO THE PRINTED ARMATURE STRUCTURE IN ORDER FOR IT TO HARDEN, AS WELL AS LACING THE STRUCTURE WITH THE CATALYTIC NUTRIENTS REQUIRED BY THE BIO-MATERIAL TO GROW UPON IT.

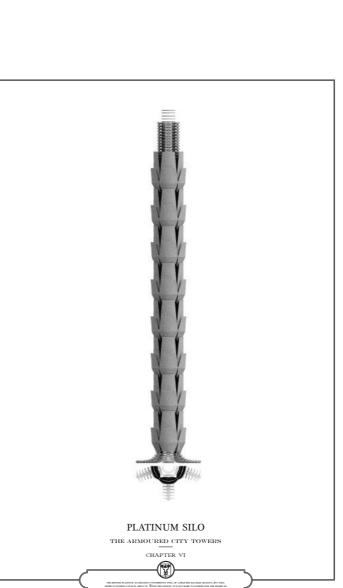
CONTROL OVER THE DRONE SWARM ALLOWS FOR THE PROGRAMMING OF BESPOKE SURFACE TREATMENTS ACROSS THE MATERIAL SURFACE, ALLOWING FOR VARYING CHARACTERISTICS IN THE URBAN FABRIC TAILORED TO SPECIFIC NEEDS AND DESIRES.

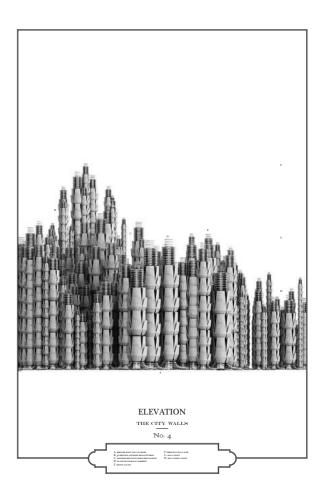
This also allows for the reprogramming of the structure throughout the buildings lifetime, allowing it to evolve and develop as requirements change and upgrades become necessary.











#### CHAPTER VII

IN THIS CASE, THE TERAMITE SWARMS BECOME URBAN SURGEONS, SPLICING AND IMPLANTING UPGRADES OR REPLACING WORN OUT PLUG IN COMPONENTRY UTILISING THE SAME LASER CUTTING TECHNOLOGIES USED DURING THE ASTEROID MINING PROCESS.

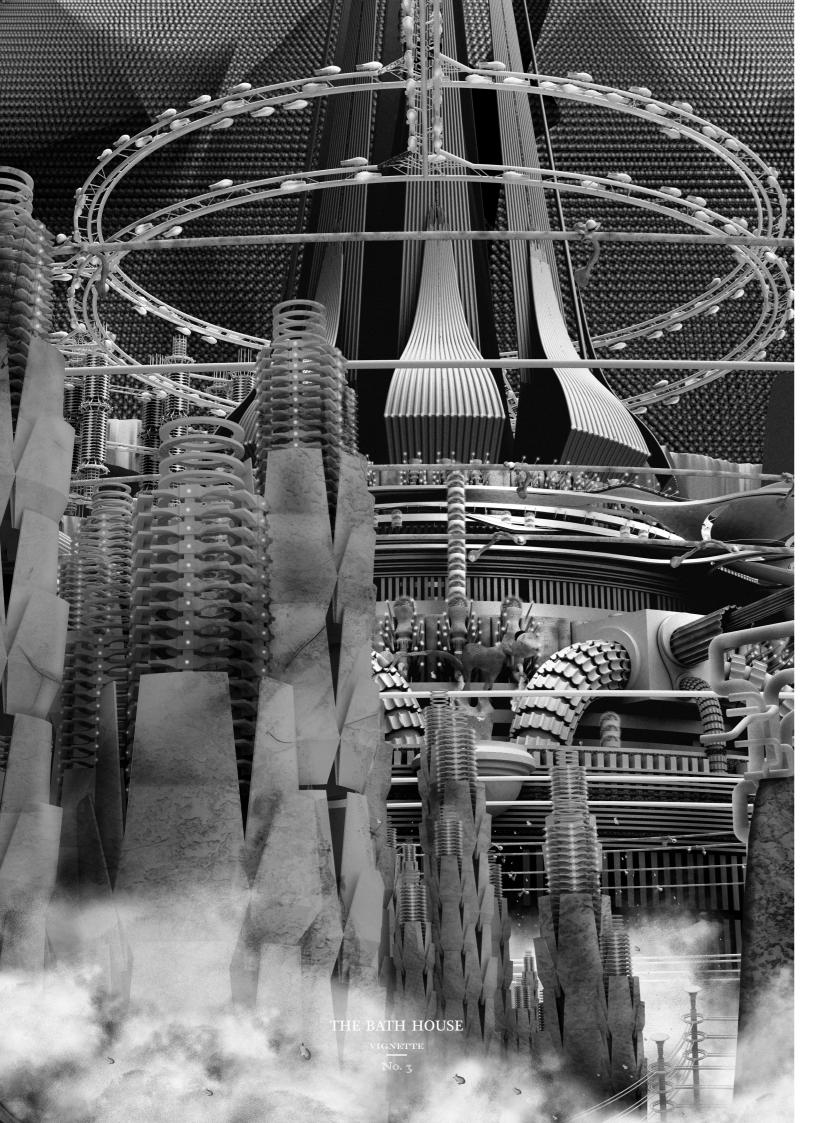
Urban scars are stitched back together by applying the catalytic cocktail of mineral enzymes and binding salts to freshly printed bio-material armatures.

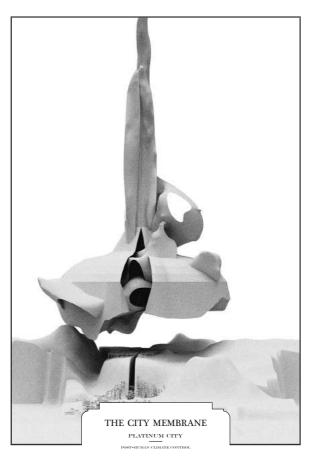
INDIVIDUAL BUILDINGS REQUIRE BUILDING LOGS CLOSER TO MEDICAL RECORDS, AND THEIR HEALTH IS MONITORED CLOSELY AT ALL TIMES BY ANALYSING BUILDING PERFORMANCE CHARTS GAINED FROM STUDYING DATA PRODUCED BY THE BUILDING ITSELF.

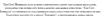
ELECTRO CHEMICAL SENSORS INTEGRATED INTO THE BIO-FORMS COMMUNICATE VIA SYNAPSES LIKE EXCHANGES REMINISCENT OF NEURONS IN THE HUMAN BRAIN, CONNECTING TO A NETWORK FROM WHICH INFORMATION IS DOWNLOADED AND ANALYSED BEFORE INTERVENTIONS ARE CALCULATED AND EXECUTED.

Natural phenomena such as bio-luminance provides a spiritual glow to the city in the depths of winter, with switches activated by the luminous teramite drone crafts that nurture and prune the landscape of bio-machines.













THE CITY MEMBRANE
POST-HUMAN CLIMATE CONTROL

CURIOSITY 5

CITY MEMBRONE ACTS AS BOTH A PROTECTIVE COMPY AND CLIMATE BOCKLY
VELOPING THE ENTIRE CITY WITH A KENETIC AND MOBILE STRUCTURE. THE C

ENVELOPING THE ENTIRE CITY WITH A KINETIC AND MORRES STRUCTURE. "THE CITY MINIBRANE" IS COMPRISED OF ROLE MEMBRANE PURES THAT FORM THE THE TERRARIT RAIN. ÉACH PURE EQUATIS TO A SINCE "TERARITE"; A PROCRAMMARE AREAL DRO



## CHAPTER VIII

IDOL TERAMITE DRONES THEMSELVES ALSO BECOME PART OF THE CITY FABRIC, CONTRIBUTING THEIR PHYSICALITY TO A KINETIC AND RESPONSIVE SKIN, DOCKING ON ARMATURES ARRANGED ON THE FACADES OF BUILDINGS PRIMARILY FIXED TO PORTAL OPENINGS AND WINDOWS.

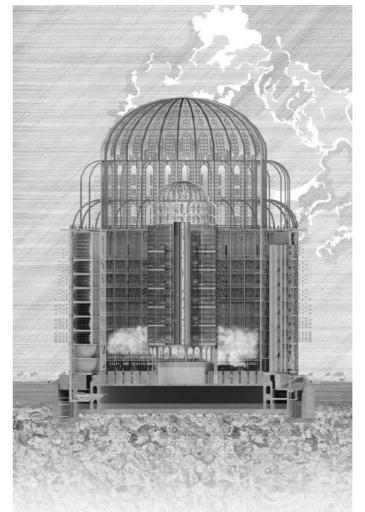
THESE ANIMATED FAÇADE PIXELS ARE RECONFIGURED REMOTELY THROUGH UTILISATION OF SWARM TECHNOLOGIES IN ORDER TO ACHIEVE CONTROLLED SOLAR SHIELDING AND ENVIRONMENTAL SHADING AND DICTATE INTERNAL PRIVACY LEVELS. THE PIXELATED ARCHITECTURAL SKINS OF PLATINUM CITIES TOWER TYPOLOGIES ARE THEREFORE PREDOMINANTLY COMPOSED OF THE RUGGED PHOTOVOLTAIC HIDES OF THE TERAMITE DRONE'S BULBOUS BLIMP LIKE FORMS WHICH ARE CAPABLE OF COLLECTING SOLAR ENERGY, CONVERTING THE ULTRAVIOLET RAYS INTO A HARNESSED CHEMICAL ENERGY THROUGH THE FAÇADE DOCKING STATIONS WHICH ARE CAPABLE OF RECHARGING THE PLATINUM FUEL CELL LIFE - BLOOD OF THE CITY.

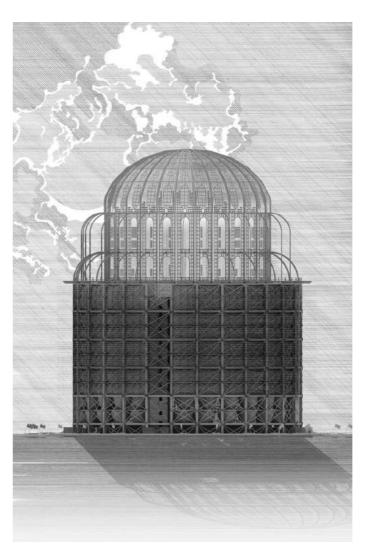
Hydrogen fuel cell power supplies are replenished as and when they are required at these network nodes, allowing the drones to function continuously throughout their functional lifetime.

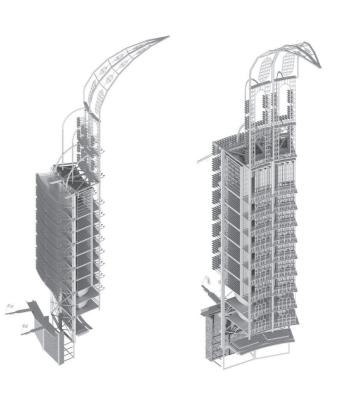
In the absence of the sun however, at the base of these hollow forms lies the 'charged landscape', a watery suburb housing electric eels, whose energy is harnessed by a vast swamp habitat infrastructure of baited eel charge traps which acts as a secondary backup to charge the crucial fuel cell stock.











## CHAPTER IX

Not all of Platinum cities buildings are formed like this however, and some have a more maternal role to play.

MELTED INTO THE COLOSSAL ICE WALL STANDS THE CITY BATH HOUSE, A REFUGE FOR THE POST-HUMAN WORKER FORCE AND VISITORS ALIKE FROM THE HARSH AND STERILE CONDITIONS OF THE VACUUM-SEALED CITY.

A THICK COAT OF POLAR FUR AND WIRY, GREASY HAIRS
CASCADE FROM THE TOWERS ASTEROID REGOLITH FACADE,
CREATING A WARM AND COSY INTERNAL ENVIRONMENT FOR
THE BUILDINGS OCCUPANTS TO ENJOY THE PASSIVELY HEATED
ASTEROID SPRINGS IN THEIR BATHING MACHINES.

A CULTURE OF ELECTRIC BATHING HAS EMERGED AMONGST THE PLATINUM CITY POPULATION, A UNIQUE BATHING PROCESS THAT EMBRACES THE EXQUISITELY FRESH WATER SPRINGS DISCOVERED DURING THE MINING PROCESSES.

The armoured hide of the city's platinum silo towers is also a mutated version of a super heavy weight biomaterial designed to protect the cities platinum haul at all costs whereas the Platinum Refinery structure is designed with permeability in mind in order to aid the process based platinum refining method employed.







#### BIOLUMINESCENT ORCHARD

CITY UTILITIES

CURIOSITY 1

REEST THE CREPS OF POLAR NIGHT TIGHTENS THROUGHOUT THE DRIPTIES OF WINTS BOX EDNC THE CITY IN CONTINUOUS DARRINGS FOR 2 FATAL MONTHS, THE NATUR NOMENA OF HIS LUMINANCE PROVIDES A SPIRITUAL CLOW TO THE CITY IN THE DRI





TERAFORMING RHIZOME

CITY PLANNING

CURIOSITY 2

THE RESIDENT MODERN, TO BAREIN CHARCE THE LINES LEVEL AND MOVISIONE, BUT IT BROKGIT A WONDREPLE AMOUNT OF ENERCY AND VICOUR TO BEAR UPON IT. OPTIO DIAS A TERRAFORMING MACHINE, THES CELLULOSE-BASED EXTREMOPHEE BROWNETS





#### BIOREMEDIATION PROTIST

CITY ECOLOGY

CURIOSITY 3

HARVEST THE TOXIC TRUSTERS THAT ARE DISPLAYED AS LEBAN EWILLERY ON THESE SUBFACE, THE BIO MECHANICAL HIDE IS ALSO HARVESTED ON A RECULAR BASIS BY SVIRONMENTAL CUARDIAN TERMITE DRONES IN ORDER TO COLLECT THE URBAN JUWE



## CHAPTER X

At the centre of these urban characters sits the Space Elevator. The bringer of life and key to the very survival of Platinum City and its residents.

THE CITY'S TOWER OF BABEL FORMS A PHYSICAL CONNECTION TO OUTER SPACE WITH A FRACILE TETHER OF SUPER LIGHTWEIGHT FLEXIBLE CARBON NANO-TUBES THAT PIERCE THE ARTIFICIAL ATMOSPHERE INTO INFINITY.

The refined Platinum ore is exported to the Solar powered Platinum Galleon port docked in high lunar orbit clear of asteroid debris Via a load carrying carriage that travels up and down the tendril like tensioned threads using ground based lasers beamed on to solar energy generating panels that are attached to the carriage.

THE PLATINUM HAUL IS THEN LOADED ONTO THE FLEET OF PLATINUM GALLEONS THAT ARE TO SET SAIL THROUGH SPACE WITH THEIR TREASURES DESTINED FOR PLANET EARTH.

