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Artist trained as a product designer

MA degree in Applied Imagination from Central St Martins



Philosophical Ruler, Aristophane

Wood 2500 x 400 cm

Killing time, killing time...stretching it...



The black latex projects

1. ecological floors & throws, Theoretically you “can not see them” but by physically stumbling on the trash you create you can not forget it anymore. Works on the consciousness.
2. Philosophically, they are images of the liquid worlds of Zygmunt Bauman.
3. Kinetic “natures mortes”



Question of origin, Mars & Venus after Poussin



Beyond the event horizon, into the black holes to the point singularity

I. EXPLORE SCIENCE, to find CLUES

GEOMETRODYNAMICS: explore the physical structure of space time in its deformation by supermassive black hole from the event horizon to the point of singularity. If it makes sense, to explore not what happens to “Alice” (spaghettification, burned in the firewall, ‘no drama’) but how spacetime is getting warped to the extreme.
Life of black hole.. What is the end if evaporation preserves quantic info??

II. VISUAL METAPHORS

III. LITERARY/PSYCHOLOGICAL METAPHORS

Beyond the event horizon, into the black holes to the point singularity

I. EXPLORE SCIENCE, to find CLUES : GEOMETRODYNAMICS

II. VISUAL METAPHORS: The hard proofs of science, the progress in our understanding make impossible the “free”, wild imagination which made tales of/ from mysterious, unexplained phenomena in the past. The ultimate mystery that lies beyond the event horizon technically allow all creation of a “Myth”.

“Interstellar” is one of such myth.

With a pantheist nostalgia for Arcadia, I imagined how our protohistory forebears would imagine black holes.

I found some appeal to the accretion of surrounding materials in the making of nest.

NESTS ... do they surround and protect New Universes or do they protect us from the answers to fundamental questions?

In a myth, a rapacious creature could be gravity, an egg could be a singularity, a potential new Universe. A hypothesis about Black holes with no hair but feathers?

III. LITERARY/PSYCHOLOGICAL METAPHORS

Beyond the event horizon, into the black holes to the point singularity

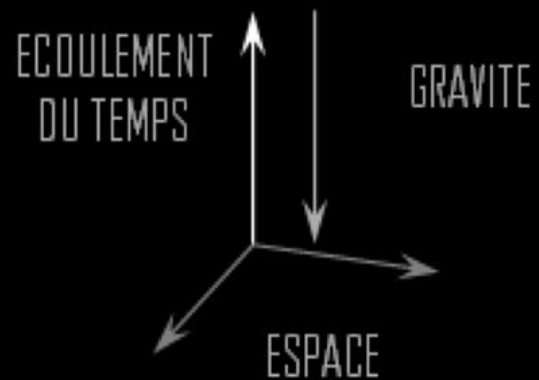
- I. EXPLORE SCIENCE, GEOMETRODYNAMICS: explore the physical structure of space time & singularity
- II. VISUAL METAPHORS: The Nest
- III. LITERARY/PSYCHOLOGICAL METAPHORS

Where Hugo, Nerval in their poetic metaphors allude to a black hole which is evocative of XX century psychoanalysis.

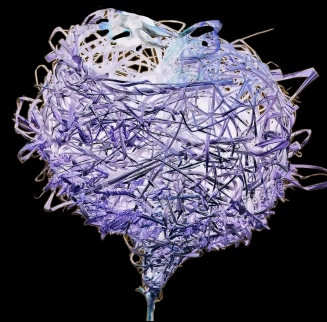


DISQUE D'ACCRÉTION

HORIZON DES ÉVÉNEMENTS



SINGULARITÉ



GEOMETRODYNAMICS

“Very hard to simulate as not trying to simulate 2 things that collide in space & time but simulating things that are made out of warp space and time and that are colliding. You don't have an arena in which this is going on, you are simulating the arena itself, a warped arena.

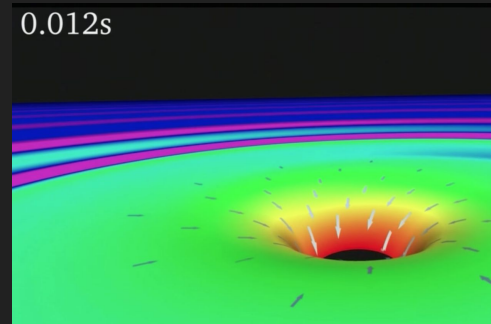
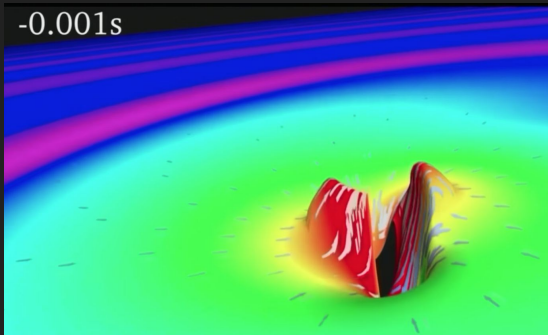
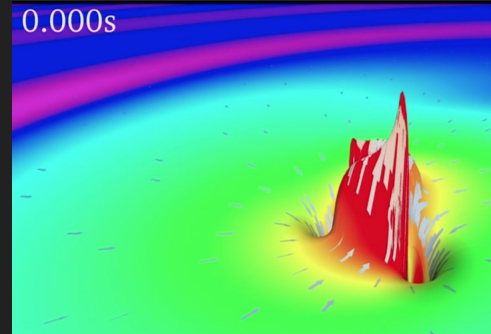
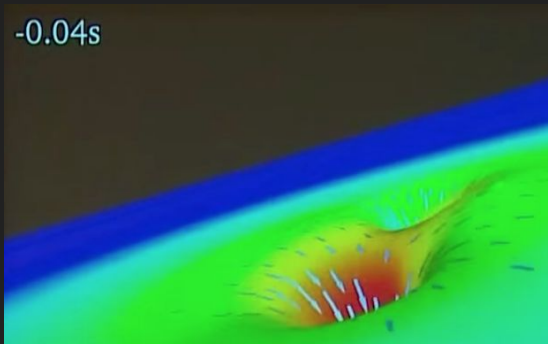
-0.021 s Simulation of colliding BH as seen from outside our U looking in on to

-0.011s The warped shape of space & time around the black hole,

0.00s The red is the slowing of time, the arrows are the dragging of space and the motion is a gigantic splash in the shape of space and the slowing of time and then

0.012 s An oscillation the GW go propagating out.”

Kip Thorne 2017



GEOMETRODYNAMICS INSIDE THE BLACK HOLE: Imagine the physicality of:

Space time stretched to the maximum limits.

“A Black Hole is an object made from warped space & time, not from matter and that all the matter concentrates at the singularity.”

Geometrodynamics of warped spacetime as a Nest, the stretching of it as a fabric.

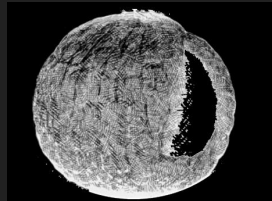
Does the matter leaves “traces” on its way to the centre. Play with the linearity of it, the descriptions of BH all seem all so clean, when the dynamism of events, the speed of rotation, the intensity of the warping of space time are signs of the contrary...

Hawkings laws of black hole mechanics: mass/energy, area related to entropy???, surface gravity to temperature..

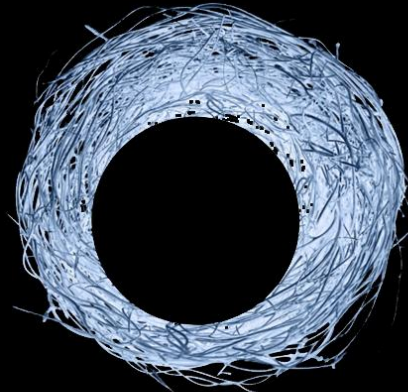
Singularity: “An opaque soup of particles?? “ what // can be made with naked singularity.

Volumic mass at the point of singularity??

Is there any limit to how massive a black hole can technically become? Scenario of merger of Andromeda's BH and ours.



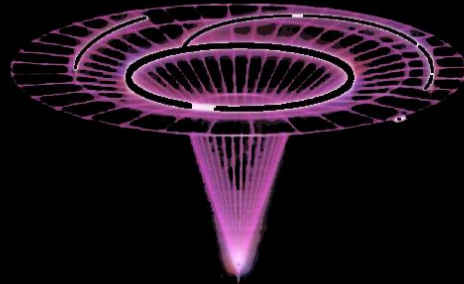
II. Visual Metaphors:



BIRD'S NEST



EVENT HORIZON



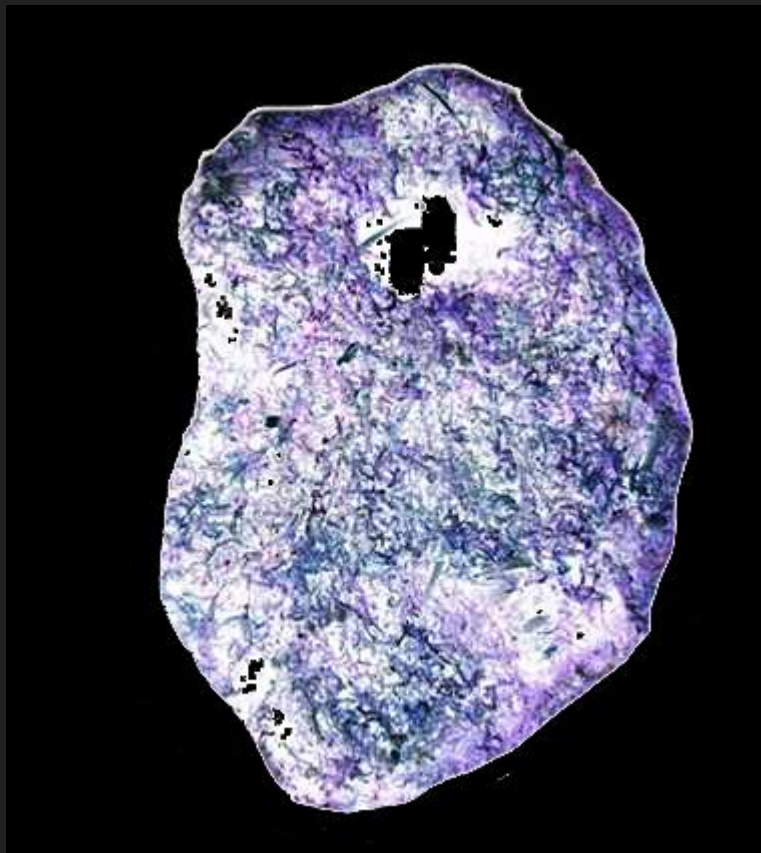
Is the event horizon a “bi-dimensional surface” or “not a physical surface, but a sphere surrounding the black hole that marks where the escape velocity is equal to the speed of light”.

Projections of 2d versus the 3D of the singularity/geometrodynamics of space time.

If a BH had exploded (ref heat Hawking radiation) could it have emitted GW (mass of BH needed?)



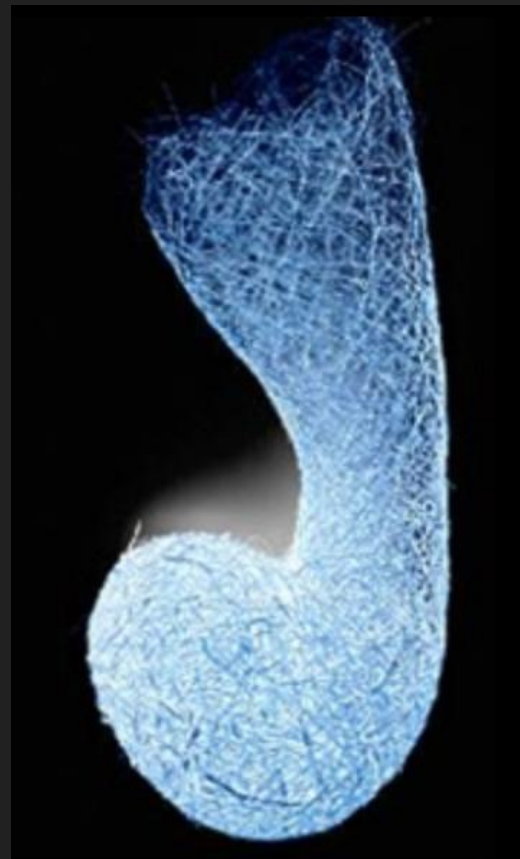
Black bird's nest : a “perfect” circle, turns on a revolving disk.

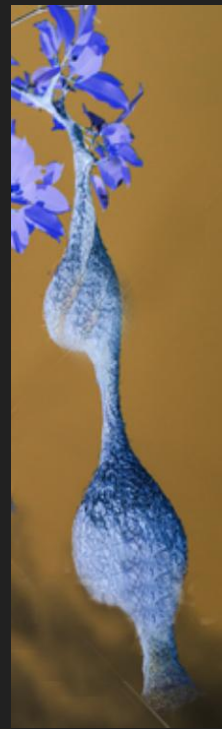


Long-tailed tit nest



Weaver Bird Nests
Gravitational pull on the frame

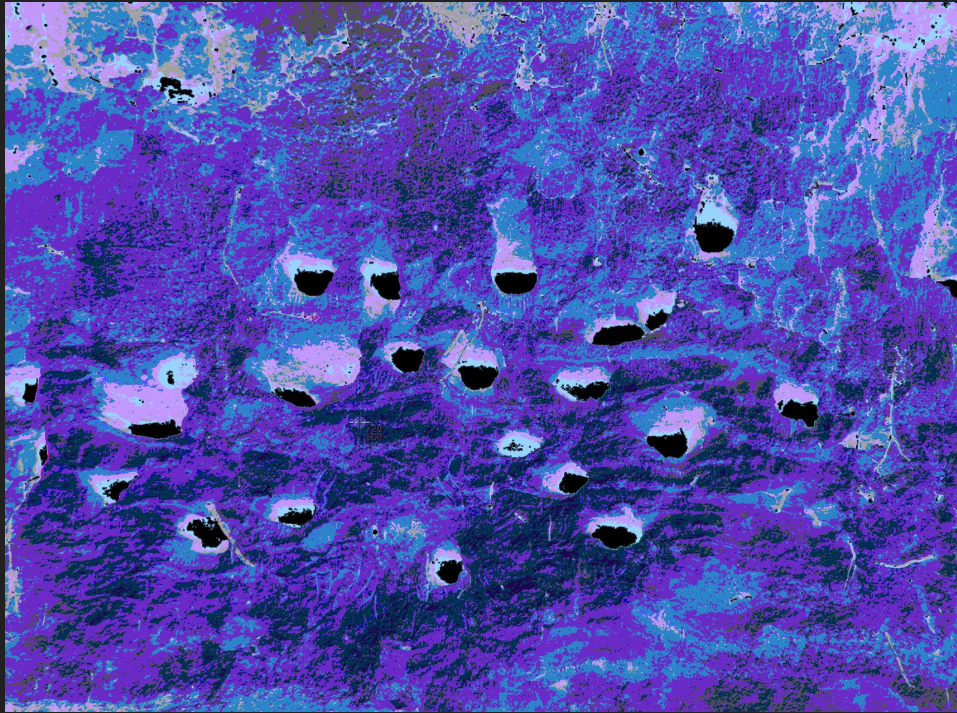




Space time 's curvature is maximal at singularity, its density infinite....isn't there a breaking point?

In fiction: a t-1 before a Big Bang (pocket Universes?? possibility seasonality of events in the Universe? Big Bang/Inflation/.../Accretion of matter... time warp, worm holes)

Will GW teach us something about the correlation between the size of a galaxy and the size of its black hole ?



Nest terriers built by shore swallows in a sandy wall

III. PSYCHOANALYTICAL & LITERARY METAPHORS

That “black holes” got their name and that their putative existence was proved in the century that saw birth of psychoanalysis and its study of the unconscious,”full emptiness”, enshrined black holes in an aura of mystery which has resonance with us, our concern with the self , unknown boundaries endless possibilities...

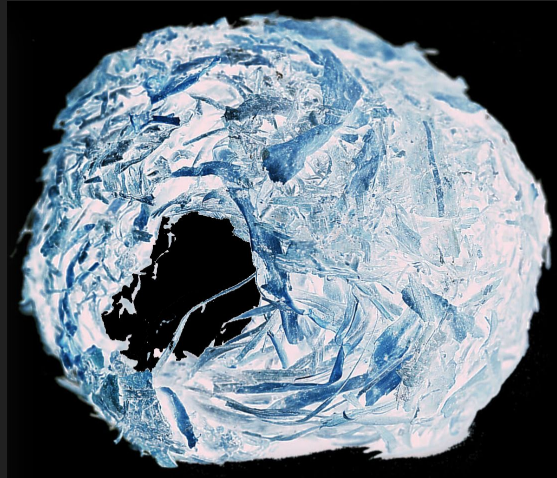
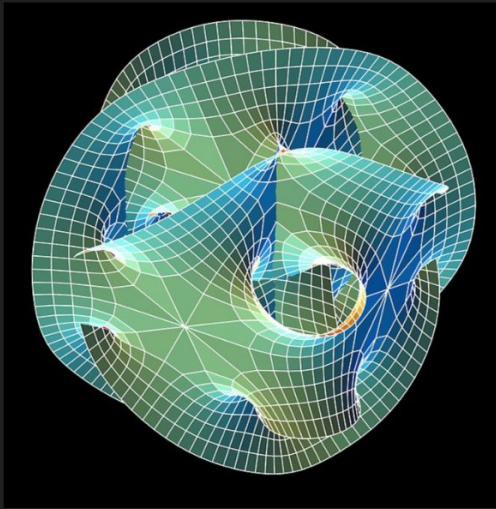
The ‘black hole’ is a signifier that pervades contemporary experience, conveying the ‘gaps’ and ‘voids’ in Western culture and psyche. Like a pandemic, depictions of the ‘black hole’ experience have continually emerged in the tragic events and cultural malaise of the twentieth and twenty-first centuries. Art, philosophy, science, psychoanalysis, literature, and cultural studies have variously articulated this frighteningly potent, yet endlessly elusive signifier. ‘black hole’ encounters are not merely negative, but are often the enigmatic source of new awareness and creation. *Journal of Analytical Psychology*, 2007, 52, 433–447

Pierre Binetruy & Gorka Alda make a parallel between Zen gardens which are filled by the meditations of monks and the Quantum Vacuum. In the same vein, could parallels be made between psychoanalytical black holes, the void and *their transcending if elusive potential*. I would also like to exploit the psychological reflection of black hole, to go beyond. “Bearing of ‘not-knowing’ is a precondition for the emergence of new personal and cultural forms. This paradoxical ‘negative’ reality is the basis of the human subject.” As for Victor Hugo, friend of Arago, the cosmic realm inspired several of his poems, but with the following verse “ des etoiles eclore aux trous noirs de leur crânes”, one can build bridge with the submentioned XXth century psychoanalysis.

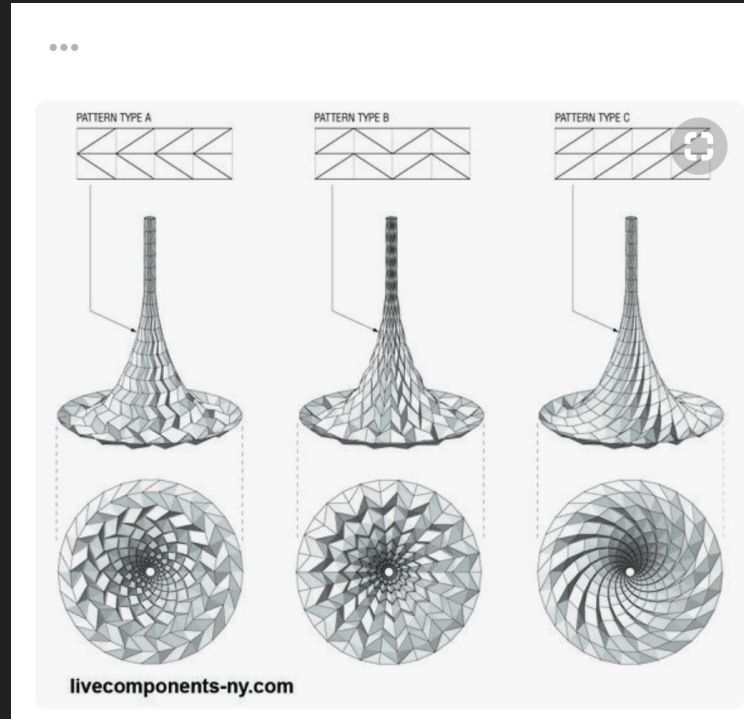
IV. PROJECTED CREATIONS, explore the possibilities of building nest structure based on strands/patches inspired by Calabi-Yau manifolds, "a type of geometrical space where each small region looks like normal Euclidean space. These patches can only be joined together by the complex analogue of a rotation. "

Warp spacetime, as strands of a nest, deformation, rotation, reflections & shadows, 2D to 3D ???

Application of principle of hologram to the creation of these 3D rotating black/hole nests...?????



Are there limits to creating CAD based on algorithm such as GRASSHOPPER 3D, equivalency to fractal?? Find a relation even if superficially with Lorentzian curve. Explore Analogue gravity to understand different ways to extrapolate about quantum gravity.



Try to go beyond parametric, algorithm based design
Past Marcos Novak post Euclidian, "liquid architectures in cyberspace"



If Proust was a bit too literal about black holes for the purpose of this research...

l'heure inévitable du retour à la bonne réalité, l'heure de la délivrance ou de la guérison ; peut-être cette absence de génie, ce trou noir qui se creusait dans mon esprit quand je cherchais le sujet de mes écrits futurs, n'était-il aussi qu'une illusion sans

The XXth century literary sees a metaphor where Shakespeare is described as a black hole (!)

longer a star, or even a superstar, but a **black hole**.

Gary Taylor is to my knowledge the first to advance this metaphor, a trope he ventures at the close of his book *Reinventing Shakespeare* (1989: 410–11). During his final chapter's treatment of the traditional notion that **Shakespeare** possessed a singular, unique genius, he notes that the effect of **Shakespeare** on our literary universe is like that of a **black hole**:

Light, insight, intelligence, matter – all pour ceaselessly into him, as critics are drawn into the densening vortex of his reputation; they add their own weight to his increasing mass. The light from other stars – other poets, other dramatists – is wrenched and bent as it passes by him on its way to us. He warps cultural space-time; he distorts our view of the universe around him.

This is as far as Taylor pursues this argument, which is perhaps less an argument in the service of analysing the apparent singularity of Shakespeare's genius and talent than yet another wonderfully poetic way of describing that singularity, this time by comparing it to something immensely powerful, infinitely weighty, dimly understood, difficult to locate, and above all, threatening in its indiscriminate voracity. In the long history of critical praise for the bard's singular genius (a history Taylor both bemusedly depreciates and participates in here), this is a specifically 'twentieth-century' iteration of tribute to the god. **Shakespeare** becomes a **black hole**, the post-Einsteinian volcano into which whole throngs of alienated and anxiety-ridden critics sacrifice themselves, intentionally and otherwise.