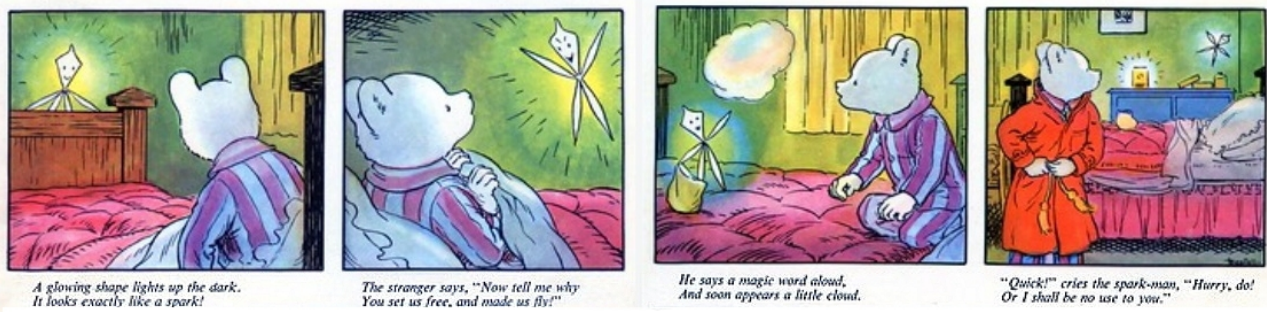


## Rupert the Bear and the Blue Moon. (An exercise in the Baroque) by "The Spill Holder and the Spark-Man."<sup>1</sup>



*Rupert and the Blue Moon starts with a story of it's time (The 1956 Rupert Annual). Rupert is thinking what he will buy his Dad for Christmas. His Dad lights his pipe using spills but has no spill jar. Spills, slivers of wood or folded paper lit by an open fire were used to get a light for the gas oven or in this case a pipe. Rupert searches out a spill jar from the local 'junk shop'. The jar contains Wishing Powder! And when his cat breaks it wishing sparks fly out. Rupert neglects to wish and one of the freed sparks remains behind to ask why. The spark then takes Rupert to Once in a Blue Moon Land<sup>2</sup> to get a replacement spill holder.*

*How to make origami models of the spill holder and Spark-Man follow after the story.*

Origami from ori meaning "folding", and kami meaning "paper". Folding involves the process of fixed objects which have degrees of movement. In language it presents the problem of ambiguity, but such ambiguity is the possibility of an Art which escapes the concept. And this is more than a dialectical process as this folding and unfolding can be done without any conceptual limit. Is the licence to deconstruct, or correctly in Derrida's terms, can exist differently in different contexts, or is an even more complex activity than deconstruction. It is an activity in itself of a medium which is not symbolic. Linguistically it would appear as nonsense, or in other contexts as noise.

Theories are fixed. Example: 'Language is just a play of differences'.

Yet we have etymologies, puns, simple / complex words, Dog, Canine (from Latin) PVC, from the chemical make up, and subtleties. Annoyed, Angry, Upset... If words would work by just differing from other words, the innate structure of the word, the letters, the sound, its length, its rhythm would be insignificant. It isn't difficult to generate strings of unique characters..

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Yet there is such a thing as 'good writing', (and bad writing (sic) – i.e. 'this'!) literature, poetry. However without innate difference which are textural and rhythmic in themselves yet signify, poetry would become impossible, or every string of words be equally 'poetic'<sup>3</sup>. A play of words generating emotions, feelings, within some artistic determination would not be possible, so no specific feelings could be derived from reading a poem as poetry. The requirements for a language, at minimum, might be 'just difference'<sup>4</sup>. But no natural language was derived by using generated differences.

The obvious candidate for an example of languages being merely arbitrary difference is the binary machine code used by computers. But even here instruction sets show a hierarchy of development

<sup>1</sup> 'The Spill Holder' and the 'Spark-Man' in the story were my first introduction to origami.

<sup>2</sup> 'Very occasionally the moon actually does appear to be blue. This sometimes occurs after a volcanic eruption, like that of Krakatao in 1883.' In the story Blue Moon Land is where the unlikely is common and has infinite potential.

<sup>3</sup> As in the case of Conceptual poetry!

<sup>4</sup> Apart from how children acquire larger vocabularies, and the cultural development of languages, new words which evoke their signifieds, i.e. 'Jumbo jet', languages tendency to have innate meaning creates very significant problems for encryption and code words. Super Antelope was the code name for a UK nuclear warhead- its larger replacement was named Chevaline.

similar to natural languages. Instruction sets like natural languages 'evolve' from more primitive (historically) instruction sets. In natural languages terms like 'Man', 'Dog', 'Cat', appear prior to more complex terms, 'humanity', 'nature' 'feline' ... and compound words (Deleuze - conjugation), 'submarine', 'Unterseeboot'. Languages exhibit family relations, typically they evolve in complexity. The physical environment will affect the structure of symbols which engage with it. Even the instruction set itself has a relationship with the underlying hardware and its design.

The fundamental physical environment in computing is the register. A register is a small chunk of memory of a limited number of bits, which differs in different processor designs<sup>5</sup>, typically physical stores of 6, or 8, 16, 24, 32 ... 64 bits, and are located within the Central Processor.

For instance the 8086 instruction set... x86 from the original 80 instructions has now over 1,000 different instructions. Being both progressive in complexity, and specific lateral extensions i.e. for cryptogenic, vector instructions, floating point instructions, MMX instructions – for graphics / games... and contain 'family relations' and mnemonic structures typical of Assembly language.

In natural languages, unlike artificial computer languages (as far as I am aware) the meanings of words are dynamic and change... 'Naughty' is now no longer "having nothing, evil, immoral, corrupt, unclean," from nought, naught "evil, an evil act; nothingness".<sup>6</sup>

For Deleuze -

Development does not go from smaller to greater things through growth or augmentation, but from the general to the special, through differentiations of an initially undifferentiated field either under the action of exterior surroundings or under the influence of internal forces that are directive, directional, but that remain neither constitutive nor performative.<sup>7</sup>

This isn't necessarily a 'rational' progression but can take place in various differing circumstances. There are for instance 'technical' languages, in every science, and in other disciplines in which there are 'formalisms', music. Poetry etc.

The identification with Leibniz's monads is not missed by Deleuze in its association to folding and the Baroque<sup>8</sup>. - A Monad is central to Leibniz's metaphysics (fundamental nature of things), which has to explain, and deal with problems of such explanations, rationally, the world.

Leibniz surmised that there are indefinitely many substances individually 'programmed' to act in a predetermined way, each substance being coordinated with all the others. This is the pre-established harmony which solved the mind-body problem, but at the cost of declaring any interaction between substances a mere appearance.<sup>9</sup>

These 'substances' are his 'Monads'. They have no connection with each other and are pre-programmed by God. God thus in effect mediates 'communication'. Simply put each Monad is akin to being in a windowless room without any connection to other Monads in other rooms. If so, when I write this, and if you read this, the act of reading was pre-established by God. My writing this is not the cause of your reading this. Though this may seem ridiculous such ideas are still found in both metaphysics and religion, in forms of Islam, and certain Christianity God is the cause of all things. A type of non theistic non-causation also occurs in recent philosophy of Object Oriented Ontology.

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<sup>5</sup> Different processor designs will have a different numbers of registers. e.g. The Z80, (used in the Sinclair ZX Spectrum and elsewhere) had eight general-purpose 8-bit registers, The IBM 370 Mainframe architecture had 16 x 32 bit general purpose registers and 4 x 64 bit floating point registers. (Both were in use at similar times.) The machine code language, binary code, is what actually runs on the computer using these registers. The physical computer (CPU), its design and development is the physical environment in which the language exists and develops.

<sup>6</sup> 'Nothing' and the zero was a problem for the Catholic Church in the original introduction of the Decimal System.

<sup>7</sup> Giles Deleuze, *The Fold, Leibniz and The Baroque*. University of Minnesota Press, p.10.

<sup>8</sup> Ibid.

<sup>9</sup> <https://en.wikipedia.org/wiki/Monadology>

Objects 'withdraw' from each other (and themselves!) - so affect the 'outside' by 'vicarious causation'.

Though the idea of vicarious causation might seem improbable as an account for the world, for some, Hume for example, the idea of causality itself is difficult to maintain as an absolute. In general most would ignore this in favour of expedience. However I think this misses a point, which is such free play, serpentine metaphysics, is used to describe Deleuze's ideas of metaphysical concepts, "Taste is this power, this being-potential of the concept: it is certainly not for "rational or reasonable" reasons that a particular concept is created or a particular component chosen..."<sup>10</sup> Graham Harman's (mis)appropriation of Heidegger, or Timothy Morton's ecologies. From an 'aesthetic' view one can see the seeming free play of the imagination in formulating such ideas, of metaphysics itself, frees the thinker's imagination which enables thought such free play...

Harman -

All things reside in infinite depths, and all things erupt into enjoyment along the shallowest façades of the world. Both moments, in turn, derive from the life of discrete substances that never fully submit to the war of all against all. And this drama is best described by the familiar term "aesthetics." Aesthetics is first philosophy <sup>11</sup>.

A philosophy can be aesthetically 'Baroque'.

It might be difficult for some to take seriously the ideas of Monads, divine predestination, vicarious causation, and 'no direct access to real objects'... yet within these contexts of speculative metaphysics the world can be viewed from differing perspectives.

Briefly, two strands dominated philosophy, and its problems from around the 17<sup>th</sup>C up to the 20<sup>th</sup> C due to the impact of science.

Empiricism and Idealism.

Science not only uses mathematics but observation, and its theories are in response to observation and these in turn subject to refutation by observation. This has been so successful that it has become the 'given' explanation, physics has usurped metaphysics and is associated with Empiricism. Metaphysics reached its zenith in 19<sup>th</sup>C German Idealism and the great 'Systems'. This is metaphysics as the creation of complex 'systems' by pure thought alone. Leibniz's monads, Kant's architectonic system, Hegel's Absolute Idealism. They are 'ideal' and these Baroque fabrications sort to underpin any empiricism which is always provisional.

In idealism the connection with mathematics might at first seem difficult if one sees mathematics in simple terms. Though a mathematics of the fold is relevant, is analogical to 'the fold'. This can be understood as the new mathematics of the curve, of changing quantities which is often difficult for non mathematicians, of which I am one. Put simply in simple geometry of a flat surface, say a chess board, a piece, pawn, knight etc. can be located by two coordinates. The board is an 8x8 grid, numbered from bottom to top, 1,2,3...7,8 and from left to right, A,B,C... G,H. So each square is identified the top right being h8. (other similar codes can and are used). These are static set properties, which Deleuze via Leibniz relates to Descartes. Not unsurprising because such a system is one using "Cartesian coordinates". To plot a three dimensional figure 3 coordinates are required. More can be added if not envisaged but the structures are still fixed. Complex curves, changing velocities, however cannot be precisely modelled using such a method. This was accomplished by using mathematics which can model dynamically changing events, the Calculus. The Calculus made a huge impact not only in science, and the industrial - mechanical developments of the industrial revolution, but was also influential in the philosophy of Leibniz and Hegel, and more recently in the thinking and work of Deleuze, Badiou et al. The Calculus, the name given by Leibniz<sup>12</sup>, is associated with 'folding' in Deleuze

<sup>10</sup> Deleuze & Guattari 'What is Philosophy?' p.46

<sup>11</sup> Graham Harman in <http://nakedpunch.com/articles/147>

<sup>12</sup> Leibniz and Newton are both credited with the invention or discovery of the calculus, though Newton claimed

for the very reason that the aesthetic, especially the visual aesthetic, of the Baroque was one of dynamic curves and dramatic events.

Leibniz is endlessly drawing up linear and numerical tables. With them he denotes the inner walls of the monad. Folds replace holes...<sup>13</sup>

However this misses the point of the 'genius' of the Baroque, partly because its attention in Deleuze relates to Fine Art, especially painting. Deleuze notes this problem in 'The Fold' with the opening of Chapter 3 'What Is Baroque'.

Monads "have no windows, by which anything could come in or go out"<sup>14</sup>. They have neither "openings nor doorways." We run the risk of understanding the problem vaguely if we fail to determine the situation. A painting always has a model on its outside; it is always a window<sup>15</sup>.

This is certainly true of 18thC Baroque painting, and Deleuze rightly points out in modern abstractionism this is not the case. However his examples of Pollock and Rauschenberg are I think misleading. The former is still involved with the materiality of painting, as opposed to its metaphysics, Pollock engages with the physics of paint and canvas, as for Rauschenberg his work is far more complex, but again not metaphysical, he is more concerned with the nature of 'Art', paint being just one of many media he employed. I'd offer the latter works of Frank Stella as examples of pure Baroque painting in that the concerns are not with the material or conceptual but with the very abstract qualities of making an image using the formal devices of the painter, shape, line, texture, curves and arabesques, of fine lines and vivid colour etc. not in producing a 'window' into something other, but of making a 'thing-in-itself' which employs only the tropes of its 'craft' in order to produce art. I think Deleuze, in concentrating on Fine Art, which in the Baroque is at times pure kitsch, misses the true 'metaphysics' that the Baroque produced which was in music. Bach, Vivaldi, Handel, Monteverdi, Scarlatti, Purcell, Telemann... such that with Bach there is the deployment of a pure abstract formalism which could be regarded as a metaphysics of the free play of the potentialities of the abstract (windowless) structures of music. And in thinking the Baroque we also arrive at Leibniz and German Idealism, but also the more recent 'idealism' of Deleuze and the Speculative Realists and Object Oriented Ontologists. To judge these metaphysics in 'scientific', empirical terms would then be to miss the point. They are not in all cases Monads, as they are not closed off to ourselves. They are like Monads in that they seem closed in on themselves.

Harman can't, and doesn't, justify his 'objects' by recourse to science or experiment<sup>16</sup>. What then are these 'philosophers' doing. According to Analytical Philosophy they are writing nonsense. And I have responses to that. Folding thought, in making 'metaphysics' is, or can be, interesting, it then becomes more like an Art than Science, but not a 'Modern Art' which in modelling itself on science and mathematics historically ended, failed. This kind of philosophy, is often denoted by the term 'speculative'<sup>17</sup>. Such philosophies are found in the 'continental' tradition, notably of Heidegger where a certain subjectivism occurs. In the latter Heidegger the question of 'being' becomes 'who'? Not 'what'? Pace Logical Positivism and Analytical Philosophy we find texts which employ metaphor, literary texts and forms. Some, notably Meillassoux, fail however to see that forms of literature are not correct at the expense of others. But for various reasons there is a move not just into speculation, but into

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plagiarism, Leibniz's term was adopted rather than Newton's 'fluxions'.

<sup>13</sup> Deleuze, *The Fold*, p.27.

<sup>14</sup> Graham Harman's Objects are similar, the "withdraw" into themselves, from the early 2000s up to the present, "by definition, there is no direct access to real objects. Real objects are incommensurable with our knowledge, untranslatable into any relational access of any sort, cognitive or otherwise."

<sup>15</sup> Deleuze, *The Fold*, p.27.

<sup>16</sup> Timothy Morton does, and has pointed out that the Higgs particle can't exist therefore will not be found.

<sup>17</sup> Hegel regarded this dialectical method or "speculative mode of cognition" (PR §10) as the hallmark of his philosophy and used the same method in the *Phenomenology of Spirit* [PhG], as well as in all of the mature works he published later—the entire *Encyclopaedia of Philosophical Sciences* (including, as its first part, the "Lesser Logic" or the *Encyclopaedia Logic* [EL]), the *Science of Logic* [SL], and the *Philosophy of Right* [PR]. (<https://plato.stanford.edu/entries/hegel-dialectics/>). Or more recently Speculative Realism (Ray Brassier, Iain Hamilton Grant, Graham Harman...) and Speculative Materialism - (Meillassoux)

elaborate metaphor and rhetoric as philosophical 'devices' <sup>18</sup>. In the realm of metaphysics the judgement of work can be undertaken by Kantian aesthetics rather than pure reason. The purposelessness of the aesthetic object is not determinate, is purposefulness without purpose, and its aesthetic in the reflective judgement which is not determinate.

An aesthetic not of 'universal' rules, and not of sensation, i.e. it is disinterested towards our personal tastes, a reflective process, of 'folding'. Like a Bach Fugue. One in which judgement can appreciate beauty and the sublime.

An insight into this kind of thing is given in Deleuze's 'The Logic of Sense'...

Tenth series of the ideal game.

The games with which we are acquainted respond to a certain number of principles, which may make the object of a theory. This theory applies equally to games of skill and to games of chance; only the nature of the rules differs,

- 1) It is necessary that in every case a set of rules pre exists the playing of the game, and, when one plays, this set takes on a categorical value.
- 2 ) these rules determine hypotheses which divide and apportion chance, that is, hypotheses of loss or gain (what happens if ...)
- 3 ) these hypotheses organize the playing of the game according to a plurality of throws, which are really and numerically distinct. Each one of them brings about a fixed distribution corresponding to one case or another.
- 4 ) the consequences of the throws range over the alternative "victory or defeat." The characteristics of normal games are therefore the pre-existing categorical rules, the distributing hypotheses, the fixed and numerically distinct distributions, and the ensuing results.

...

It is not enough to oppose a "major" game to the minor game of man, nor a divine game to the human game; it is necessary to imagine other principles, even those which appear inapplicable, by means of which the game would become pure.

- 1 ) There are no pre-existing rules, each move invents its own rules; it bears upon its own rule.
- 2 ) Far from dividing and apportioning chance in a really distinct number of throws, all throws affirm chance and endlessly ramify it with each throw.
- 3 ) The throws therefore are not really or numerically distinct....
- 4 ) Such a game — without rules, with neither winner nor loser, without responsibility, a game of innocence, a caucus-race, in which skill and chance are no longer distinguishable seems to have no reality. Besides, it would amuse no one.

...

The ideal game of which we speak cannot be played by either man or God. It can only be thought as nonsense. But precisely for this reason, it is the reality of thought itself and the unconscious of pure thought.

...

This game is reserved then for thought and art. In it there is nothing but victories for those who know how to play, that is, how to affirm and ramify chance, instead of dividing it in order to dominate it, in order to wager, in order to win. This game, which can only exist in thought and which has no other result than the work of art, is also that by which thought and art are real and disturbing reality, morality, and the economy of the world.

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<sup>18</sup> "In Guerrilla Metaphysics, however, Harman offers some possible ways of linking these ideas to long-standing topics of interest in rhetoric and composition. In a wide-reaching and inventive reading of metaphor, for example, Harman takes what might be described as the first step toward developing an "object-oriented rhetoric." "

In "Toward an Object-Oriented Rhetoric: A Review of Tool-Being: Heidegger and the Metaphysics of Objects and Guerrilla Metaphysics: Phenomenology and the Carpentry of Things by Graham Harman" from Scot Barnett.

An account of this 'disturbance' could be related to Kant's critique of Judgement, see above, and is something referenced by Deleuze elsewhere, as "contentment is neither a sensible effect nor a special feeling, but an intellectual analogue of feeling."<sup>19</sup>

With Deleuze's 'Kant's Critical Philosophy' we have an access to the judgement of the Baroque via the idea of the fold which can be employed both in the appreciation of Metaphysics, whether it be idealism or speculative realism or of any "pure metaphysician"<sup>20</sup>.

Baroque music of the 'classical period' - (late 17thC- 18thC) used accomplished improvisation, complex polyphony, multiple independent melody lines, the fugue and *ricercar* (which explore the permutations of a given motif). These musics are less 'pictorial' than the latter music of Romanticism. They display what I will call 'abstract folding' of the sort which is following an internal, not external logic and reference points. Compare the structures found in the fugue and *ricercar* to the 'pictorial' interlude of the storm in Beethoven's Romantic Pastoral. The Baroque is a physical form of 'pure metaphysics' which in method and aims must transcend the ordinary empirical 'given'.

The point is that 'Baroque Folding' is an internal programme. Thus it typically appears when genres become exhausted or fully mature. A very early classical example is the development of Corinthian Architecture from that of the Doric & Ionic, or the much more recent, post-modernism, especially noticeable in Architecture. A certain playfulness which can and does in Po-Mo reduce to mere sensation and irony.

Within contemporary music is the reaction to the extreme minimalism of Harsh Noise Wall's monolithic unchanging noise. This *cul-de-sac* has an obvious problem, and various methodologies have evolved in order to circumvent its effective closure of the noise genre, from abandoning noise altogether<sup>21</sup> to alternatives, such as *shit folk* and *ultra shit folk*.

Ultra Shit Folk lives up to its name in nearly every way. It is very loosely "folk", and it is quite apparently "ultra shit" so far as it is played with an air of apathy and almost deliberate sloppiness that pushes it into that realm of decidedly unclassifiable music that is home to so many other musical pariahs... In this sense Ultra Shit Folk in a lot of ways owes itself to Perrot's main project, *Vomir* [A HNW project]; similarly aiming to deconstruct the definition of music to the point that the line between what is and what isn't become so blurred that it's hard to tell where one side ends and the other begins...and although *Vomir* quite safely sits on the side of what is generally seen as not music (again, a very debatable topic), Ultra Shit Folk toys with the notion, finding itself fundamentally grounded in the reality of music.<sup>22</sup>

These though just seek alternatives and not any 'development'. As above development involves complexity, synthesis, found in the development of speculative metaphysics, baroque music, contemporary painting, and even in the development of the x86 CPU architecture.

This is not abandonment but more adornment. In 'Noise Music' the same can and does occur, 'Baroque Noise' is not abandonment, or a retrograde back into being "fundamentally grounded in the reality of music", but as a noise which "sits on the side of what is generally seen as not music". This option is the baroque fold, by abstractly using the tropes, forms etc. of noise music not as external expression, but as an internal work which explores the permutations and improvisational possibilities of a given motif. The tropes of Harsh Noise, the motifs are now of feedback, oscillator sweeps, distortion, white noise etc. Abstract sounds, found in Harsh Noise prior to its collapse into a minimal wall. What is removed is the idea of a linear 'progress' taken in modernism from science which dogged Art, and did so also to the development of Noise (*musie*), from Industrial through to power electronics

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<sup>19</sup> Gilles Deleuze, *Kant's Critical Philosophy, The Doctrine of the Faculties*, Athlone Press, 1984. p. 46.

<sup>20</sup> Deleuze on his work, - quoted in 'Gilles Deleuze and Metaphysics', Alain Beaulieu, Edward Kazarian, Julia Sushytska, Julia (eds.) Lexington Books, 2014.

<sup>21</sup> Wolf Eyes' John Olson Says Noise Music Is Over: "Completely, 100 Percent".

<sup>22</sup> Review by *iloveyouall* <https://www.sputnikmusic.com/review/71514/Roro-Perrot-Ultra-Shit-Folk/>

and finally Noise, Japnoise, Harsh Noise and Harsh Noise Wall. The modernist 'science' of progress and an ever minimal requirement in order to reach some essence which closes down, ends the linear movement. If modernism in its linear development fixes and finalizes itself in a Cartesian / Euclidean fixed point, a null event, the Baroque does not. The metaphor of the calculus is useful, for around it are mathematical objects such as the limit. In simple non mathematical terms a series of calculations can approach a limit but never reach it, in and in getting closer to a potential infinity of numbers. For non mathematicians this is best seen in the obvious Baroque of The Mandelbrot set<sup>23</sup>. Folding can produce infinite variation.

There are good examples of this 'folded noise' or 'Baroque Noise', such works as 'East Q' by A Fail Association, (<https://absurdexposition.bandcamp.com/>). In eschewing the tropes of modernism such a music, noise, is capable of a non linear development.

It is to a general idea of the fold and the Baroque referenced by Deleuze we can now see how Baroque Art and 'Baroque' metaphysics (From any "pure metaphysician") can have a framework of reflection.

The development of the x86 CPU, at first sight cannot be aesthetic, but it is in part driven by an aesthetic, MMX instructions – added for graphics / games... Cryptographic instructions and others...<sup>24</sup> Instructions which if compared with the original 80, e.g. "HLT Enter halt state 0xF4 " certainly appear 'Baroque' -

VPMASKMOVD Conditionally reads any number of elements from a SIMD vector memory operand into a destination register, leaving the remaining vector elements unread and setting the corresponding elements in the destination register to zero. Alternatively, conditionally writes any number of elements from a SIMD vector register operand to a vector memory operand, leaving the remaining elements of the memory operand unchanged .

There is even an analogue of minimalism in CPU architecture, RISC, reduced instruction set computer, though the x86-based platforms remain the dominant processor!

Deleuze states this judgement is heautonomous "that is it legislates over itself"<sup>25</sup>.

...the pure representation of the beautiful object is particular: the object of the aesthetic judgement is therefore without concept or its necessity and universality are subjective.... this supposition would be impossible without some sort of intervention of the understanding. We have seen the role played by the imagination: it reflects a particular object from the point of view of form. In doing so it does not relate to a determinate concept of the understanding. But it relates to the understanding itself, as the faculty of concepts in general: it relates to an indeterminate concept of the understanding. In other words the imagination, in its pure freedom, is in agreement with the understanding in its non-specified legality.<sup>26</sup>

This 'judgement' is extremely important in Kant's philosophy because it forms the basis for the two other critiques in which judgement occurs.

The second form of aesthetic judgement is the Sublime. Here the imagination fails to reflect as it is overwhelmed. It should be obvious that music, nature and noise can do this, perhaps not so obvious

<sup>23</sup> "It can be constructed as the limit set of a sequence of plane algebraic curves, the Mandelbrot curves, of the general type known as polynomial lemniscates... in the sense of converging to a limit set. The Mandelbrot set in general is not strictly self-similar but it is quasi-self-similar, as small slightly different versions of itself can be found at arbitrarily small scales. These little copies of the Mandelbrot set are all slightly different"  
[https://en.wikipedia.org/wiki/Mandelbrot\\_set](https://en.wikipedia.org/wiki/Mandelbrot_set)

<sup>24</sup> AESENC Perform one round of an AES encryption flow AESENCLAST Perform the last round of an AES encryption flow AESDEC Perform one round of an AES decryption flow AESDECLAST Perform the last round of an AES decryption flow AESKEYGENASSIST Assist in AES round key generation AESIMC Assist in AES Inverse Mix Columns VGETMANTSD Extract float32/float64 of normalized mantissa from float32/float64 scalar

<sup>25</sup> Ibid. p. 48.

<sup>26</sup> Ibid.

that metaphysics can, yet the kind of pure metaphysics of Deleuze is one in which it might for some!<sup>27</sup> certainly in the appreciation of the Chaosmos, which is expanded in 'The Sense of Logic',

The ideal game of which we speak cannot be played by either man or God. It can only be thought as nonsense. But precisely for this reason, it is the reality of thought itself and the unconscious of pure thought... This game, which can only exist in thought and which has no other result than the work of art, is also that by which thought and art are real and disturbing reality, morality, and the economy of the world.

The process of 'folding' is synthetic, not analytic, both processes are to be found in Metaphysics and Art.

Kant in *The Critique of Pure Reason* sets out to establish an a priori basis for his transcendental metaphysics, and in doing so makes two distinctions. The philosophy of this needn't concern us. What is useful is in relation to the idea of The Fold. The epistemological philosophical implications which are disputed by some<sup>28</sup> also need not bother us here. What is significant in Kant, for us, is that Kant maintains that the Synthetic can produce (a priori) new objects without recourse to finding them in the outside (world). In Analysis something is broken down or examined to find its fundamental form or origin. This is normally regarded as a task which will arrive at something fundamental and basic. In early philosophy – the Atom – in Jungian analysis the archetype. It may well be that such a final analysis is not possible, that analysis is potentially infinite, or that it results in a void. Synthesis is the reverse. Given some fundamental objects we can with these create new objects new structures – out of what is already given. A triangle can be analysed into its basic three sides of straight lines, but given a triangle we can synthesise new objects. With two triangles we can make a quadrilateral, and continue – pentagons... hexagons... with no limit – and no recourse to anything external to our basic element. And whereas Analysis is contained by the analysis of 'what is there' Synthesis creates new objects that are not 'already there'. The Baroque is this distinction between the Analytic A Priori and Kant's idea of a Synthetic A Priori<sup>29</sup>.

A (disputed) example is in the arts, is that of Analytic Cubism and Synthetic Cubism. Whereas Analytical cubism broke up the picture plane into its elements, (not literally cubes<sup>30</sup>) Synthetic Cubism used these basic 'elements' to synthesise new compositions. There are other analogical examples, such as that of the decomposition of matter<sup>31</sup>, and the synthesis of molecules. The latter is one central to Deleuze's thinking. The tendency in modernism was analytical. "What is painting?" "What is music?" "What is Art?", the desire of what is "essential". If we use Cubism as an example we can clearly see that the 'Analytical' phase was relatively short lived, the Synthetic move allowing Picasso and others an alternative continuous productive methodology<sup>32</sup>.

The (Baroque) fold is a synthetic methodology. At the most pedantic Origami – (from ori "folding", and kami "paper"). An origami Swan is a synthesis of a flat sheet of paper. All of the creations of Origami are in the last analysis flat sheets of paper, the methodology of Origami of 'folding' is Synthetic, and offers an infinity of productions, including the Spill Holder and the Spark-Man.

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<sup>27</sup> Or some of the latter x86 instructions!

<sup>28</sup> W.V.O. Quine et.al.

<sup>29</sup> A Priori is a truth that requires no external verification, and for many philosophers is a higher form of truth than that of science which is always provisional - a posteriori. It was Hume who pointed out that cause and effect are not rationally certain (a priori), but a consequence of observing repeated events- and so a psychological phenomena – and this scepticism woke Kant from his 'Dogmatic slumbers' – causing him to seek an absolutely certain truth – knowledge as a foundation for philosophy.

<sup>30</sup> "Braque has just sent in [to the 1908 Salon d'Automne] a painting made of little cubes". Alex Danchev, *Georges Braques: A Life*, Arcade Publishing, 2005.

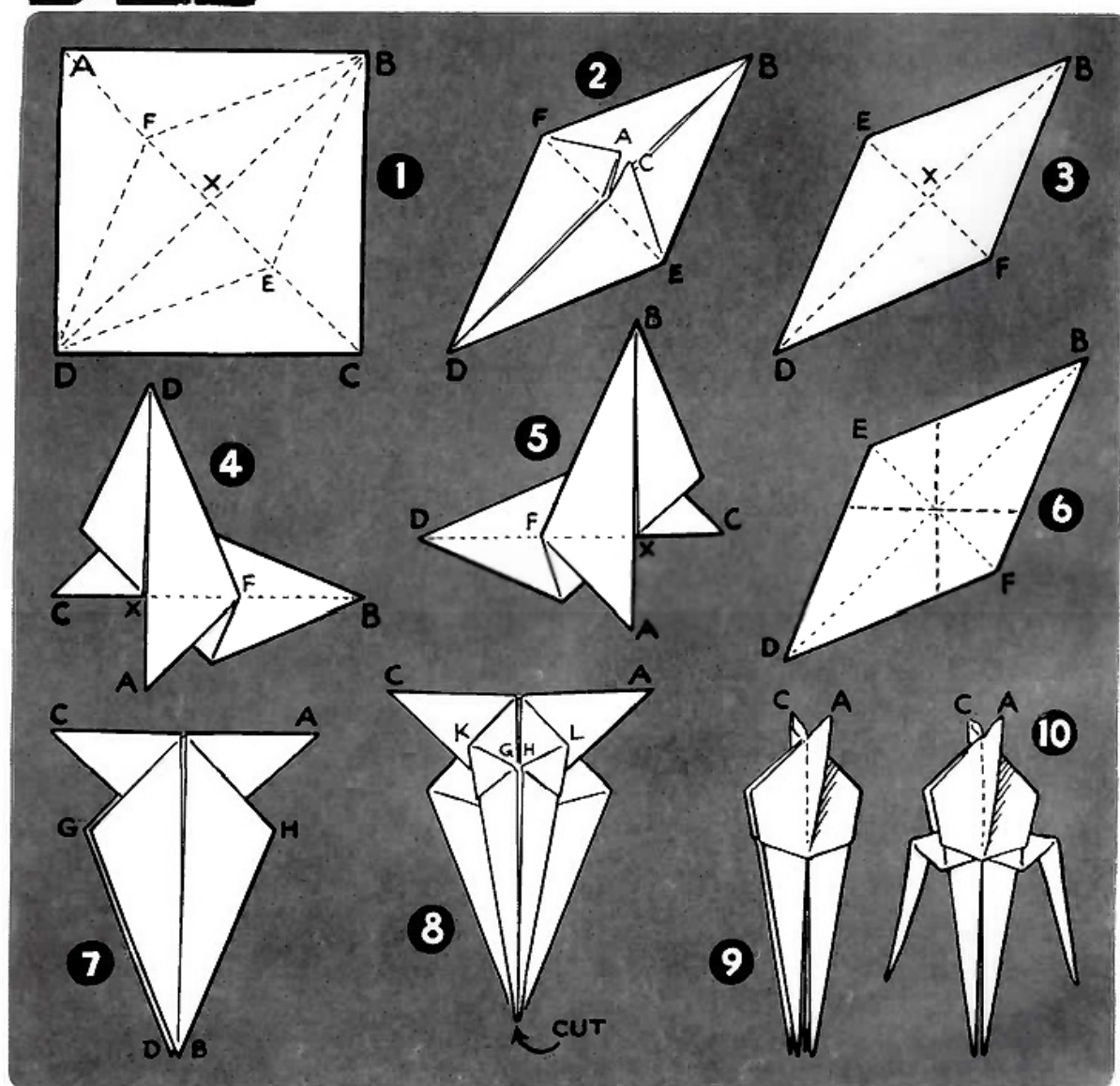
<sup>31</sup> Pablo Picasso's *Demiselles d'Avignon* of 1907 has often been considered a proto-Cubist work. From 1907 Ernest Rutherford began work at the Victoria University of Manchester which was significant in the discovery of sub atomic particles.

<sup>32</sup> In painting the Analysis was completed in the examples of white and black Canvases, in Art in empty and closed galleries.



## TWO PAPER-FOLDING MODELS

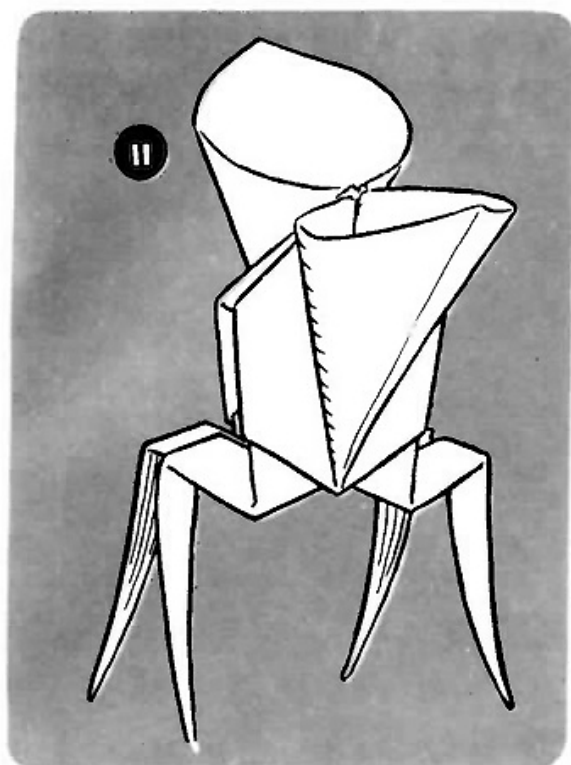
# RUPERT'S SPILL-HOLDER AND THE SPARK-MAN



### HOW TO MAKE RUPERT'S SPILL-HOLDER

Take a square of paper not less than six inches across and fold it corner to corner to give the crease BD. Turn it over and fold B to D to make the crease AC. Then put the four sides in turn to the line BD to make the folds BE, BF, DE and DF as in figure 1. Now lay all four sides as far as possible to the line BD, leaving the points A and C sticking up (fig. 2). Turn the shape over (fig. 3) and fold it in half through the middle point X, so that the line XF lies exactly along XB as in figure 4. Repeat the other way making XF lie along XD (fig. 5). This gives

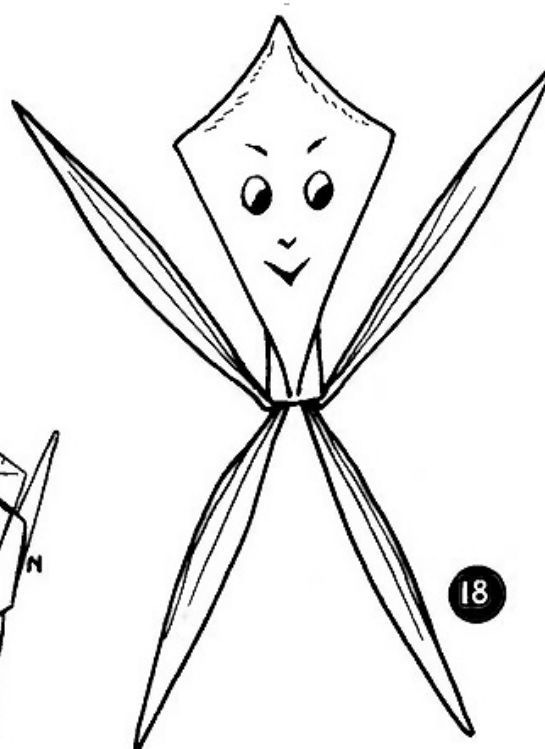
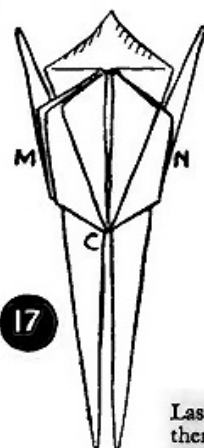
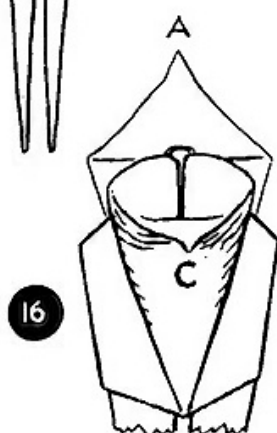
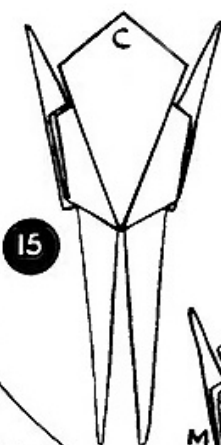
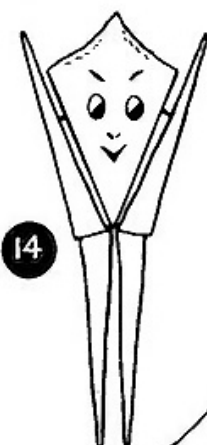
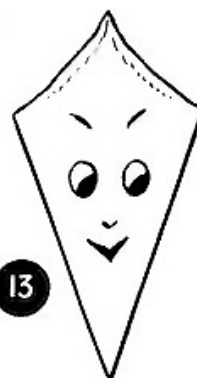
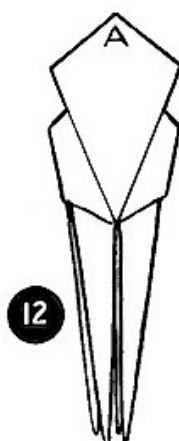
you the two new creases shown in figure 6. Press them firmly. Next carry E across to F, letting B come across to D, making figure 7. Fold the sides BG and BH to the middle line and again press firmly (fig. 8). Repeat on the other side and, taking your scissors, cut from the point marked by the arrow, up the middle line more than halfway to the top to give the shape four "legs". Fold K to L and repeat the other side to make figure 9. Give two of the legs double folds as in figure 10, and repeat with the other two legs.



Bend the legs away from each other, open out the lily-like shapes at A and C and there is your spill-holder (fig. 11).

# HOW TO MAKE THE SPARK-MAN

To make Rupert's Spark-man take another square of paper and fold it in the same way up to figure 9. Then press the point A back and flatten the shape as in figure 12. On this new kite shape draw a cheery little face and pinch the upper sides to bring the head to a point (fig. 13). Lift the front "legs", press them firmly upward to make arms (fig. 14) and turn the shape round, pressing the point C flat (fig. 15). Now comes a tricky fold as you take the point C as in figure 16 and bring it down as far as it will go, working the sides in and pressing them neatly to look like figure 17.



Lastly bring back all the thick folds at M and N, hold them firmly together or fasten them with a paper-clip and your Spark-man has appeared.

