



laetus in praesens

Alternative view of segmented documents via Kairos

3 April 2023 | Draft

Dollar Sign as Questionable Map of Capitalism?

Exploring the malleability of a fundamental symbol for society

-- / --

Introduction

Capitalism mind maps and system diagrams
Representations of dollar sign -- typefaces and otherwise
Representation of dollar sign in 3D using Möbius strip
Dollar sign in 3D as a template for mapping features of capitalism
Capitalism pros, cons and contradictions
Eagle as basis of heraldic projection of higher dimensionality of dollar capitalism
Experimental representation of capitalism as 3D configurations of Möbius strips
Flight as a strategic metaphor in relation to eagle and dollar?
Symbols of major currencies: Pound / Yuan / Ruble / Euro
Implication of potentially related symbols: Hygieia, Asclepius and Caduceus?
Personal embodiment of symbolism common to monetary tokens
Production ∞ Reproduction :: Capitalism ∞ Arsenalism?
Capitalism as hyperobject entangling hyposubjects?
Capitalism as answer with dollar symbolizing the unrecognized question?
3D Dollar sign as a sigmoid curve -- but with its inverse?
References

Introduction

The **dollar** is the name of some 20 currencies. Its importance at the present time derives from its role as the primary **reserve currency**. It is a foreign currency that is held in significant quantities by central banks or other monetary authorities as part of their foreign exchange reserves. It can be used in international transactions, international investments and all aspects of the global economy. It is often considered a hard currency or safe-haven currency. The United Kingdom's pound sterling was the primary reserve currency of much of the world in the 19th century and first half of the 20th century. However, by the middle of the 20th century, the United States dollar had become the world's dominant reserve currency.

The **dollar sign** is a symbol consisting of a capital "S" crossed with one or two vertical strokes (\$), used to indicate the unit of various currencies around the world. It is also known as the peso sign. It is considered to be among the world's most potent symbols, emblematic of far more than US currency. It is held to be shorthand for the American dream and all the consumerism and commodification that comes with it, signifying at once sunny aspiration, splashy greed and rampant capitalism (Hephzibah Anderson, *The curious origins of the dollar symbol*, BBC, 30 May 2019). For Anderson, despite its ubiquity, and as described by *Wikipedia*, the origins of the dollar sign remain far from clear, with competing theories touching on Bohemian coins, the Pillars of Hercules and harried merchants.

No symbol for capitalism? Curiously whilst the contrasting system of communism has used the "hammer and sickle" as a symbol (but not by China), there is no agreed symbol of capitalism. Although it is not sanctioned as a symbol for capitalism, given the extent to which it is practiced in the United States, the dollar sign has acquired the status of the most universally recognized capitalist symbol (*Symbol for Capitalism*, FB Symbols). For Nichole Fernández:

The dollar sign is commonly used in image production to represent not just US currency but money, wealth, success, and – sometimes – to critically represent greed and ostentatious behaviour. The dollar sign is regularly seen in advertising, it has a presence in media, it appears in popular culture..., and it is widely used in computer coding languages. The symbol surpasses linguistic barriers crossing international borders with its meaning intact and maintaining its widespread recognition. While we immediately understand the symbol's meaning, we are less aware that it is a modern construction: it was created and designed. (*\$\$ The Dollar Sign \$\$*, itaintnecessarilyso, 21 April 2015)

Dollar as systemic map? The concern in what follows is whether the elements of the dollar symbol allow -- and invite -- some form of decoding, as is the case with many symbols of fundamental importance to society and culture. More specifically, given the somewhat nebulous nature of capitalism -- whether appreciated or deprecated -- the question is whether its systemic features can be usefully and succinctly associated with those elements. **Is the dollar sign effectively an unexplored map of capitalism -- a "self-mapping" device?**

With capitalism understood as a primary global "culture", is the dollar symbol to be understood as its "coat of arms" -- namely its "armorial bearings", according to the traditional principles of [heraldry](#)? **Can the dollar symbol then be usefully explored as a form of mind map?**

However as a systemic representation from an objective perspective, any conventional mind map avoids the subjective associations evoked by the dollar as a symbol. It is the entangled complex of such associations which may be somehow succinctly and coherently expressed by that symbol -- and presumably recognized intuitively in some manner, if only unconsciously. If they can be explicitly mapped onto the symbol, this would offer a singularly powerful articulation of the nature of capitalism -- succinctly depicted, as with valued heraldic symbols. The argument can be made by contrast with the swastika, however deprecated it is as a powerful symbol of fascism (*Swastika as Dynamic Pattern Underlying Psychosocial Power Processes*, 2012).

Integrating contrasting perspectives? As a mind map, it would then be appropriate that both appreciated and deprecated processes of capitalism should be integrated into interpretation of the dollar symbol. For the exercise to be of greater value it would be relevant to indicate how particular processes are more visible in practice -- or more readily hidden. Can the mind map be usefully organized to reflect what is held to be "above the table", "below the table", and "behind the scenes" -- aside from what capitalists claim to be the unquestionable merits of capitalism? How might the symbol also encode what Karl Marx identified as the ["internal contradictions of capitalism"](#)?

Given the distinctive perceptions of the questionable nature of capitalism, the exploration here exploits the potential of 3D representations by exploring how the 2D dollar sign might be represented in 3D -- with the 2D variant as a projection of the 3D form. This follows from previous exercises (*Cognitive Implications in 3D of Triadic Symbols Valued in 2D*, 2017; *Envisaging NATO Otherwise -- in 3D and 4D?* 2017). Given the array of symbols of competing currencies, indicative of the fragmentation of global society, the possibility of using such technology to reconcile their disparate systemic functions also merits consideration (*Reconciling Symbols of Islam, Judaism and Christianity*, 2017). How might the relation between the Dollar, the Pound, the Euro, the Yuan and the Ruble be imagined otherwise, for example?

The argument concludes with the suggestion that the systemic complexity with which capitalism is perceived through the dollar merits recognition as a hyperobject within which hyposubjects are entangled. In that light, the intimate relation between production and reproduction is complemented by that between capitalism and the "arsenalism".

Capitalism mind maps and system diagrams

As might be suspected, various mind maps of capitalism have been produced. For copyright reasons, they cannot be usefully reproduced here -- an irony in its own right. They are however readily accessible as follows:

- Jose Salazar Villalon: *Mind Map on *Capitalism** (*GoConqr*, 15 February 2017)
- Kimberly Dominguez: *Capitalism* (*MindMeister*, 2012)
- João Castro: *Capitalismo* (*MindMeister*)
- L.G. Starr: *Karl Marx Mind Map* (22 October 2011)
- Peter Scott-Morgan: *Unintended consequences of High-Tech combined with Capitalism risk systemic crises*
- *The Four Principles of Conscious Capitalism* (*BiggerPlate*)
- *Capitalism* (*EdrawMind*)
- *Capitalism mind map, business concept for presentations and reports* (*Dreamstime*)
- *Capitalism mind map*
- *Capitalism* (*Xmind*)

Some mind maps are constructed to enable comparison with socialism and communism:

- Ryan Lin: *Mind Map on Capitalism vs Socialism* (*GoConqr*, 8 February 2017)
- Marina A: *Communism and Capitalism* (*GoConqr*, 2022)
- Noah_S: *An Inspector Calls - Socialism vs Capitalism* (*Get Revising*, 6 May 2019)
- *The Caucasian Chalk Circle Theme: Capitalism Vs. Communism* (13 March 2014)

Related presentations are described in terms of a diagram of capitalism as a system:

- William B. Beyers: *The Capitalist System* (*Pearson Education*, 2012)
- Scott Bateman: *How Capitalism Works: a handy chart-like chart* (*The Nib*, 24 April 2014)
- Greg Holesh: *Capitalism Then and Now* (*Framing the Dialogue*, 12 April 2011)
- Edward W. Younkins: *Toward a Conceptual Framework for Capitalism* (*Le Quebecois Libre*, 15 March 2003)
- *Features of Capitalism* (*Homework1*)

Of relevance to the form of any design, as it might relate to the dollar sign, some comparisons are made using a Venn diagram:

- Malvina Tkachuk: *Capitalism vs. Socialism [classic]* (*Creately*)
- *Capitalism vs. Communism*

- [Capitalism vs Communism: the difference](#)
- [Which countries are capitalist, socialist, and communist in 2015 \(Quora\)](#)












The variety of factors presented in the diagrams referenced above can indeed be seen as problematic. Given the disparate depictions, how is the coherence of capitalism imagined in the symbolic terms exemplified by heraldic configurations -- whether appreciated or deprecated?

The following exercise is necessarily experimental and speculative. It is only suggestive of the possibility of mapping -- into the form of the dollar sign -- the systemic processes to which the above diagrams variously refer. In that sense the dollar sign is to be understood as a template with whose elements those processes might be associated to offer a sense of coherence integrating the dimensions which may be appreciated and deprecated, whether overt or covert.

Whether considered a sign or a symbol, is the form to be explored as a [visual metaphor](#) of capitalism -- or in terms of more fundamental significance as yet to be explicated (Michalle Gal, *The Visuality of Metaphors: a formalist ontology of metaphors*, *Cognitive Linguistic Studies*, 7, 2020, 1; Michalle Gal, *Visual Metaphors and Aesthetics*, 2022).

Representations of dollar sign -- typefaces and otherwise

It is appropriate to note that representations of the dollar sign may vary according to the typeface used, particularly with respect to the number of vertical strokes across the "S".

Dollar sign fonts and variants				
Standard fonts			Variant in 2D	Design derivation from 3D
 Calibri	 Times	 Harrington		
 Cardo	 Clarendon	 Crimson		
 Old English	 Forte	 Hoedown		
By Kes47 Own work, CC BY-SA 4.0, Link				

Discussion of the origins of the dollar sign and whether it should have two lines has featured in [Quora](#) ([Why does the dollar sign symbol \(\\$\) sometimes have one vertical line and other times two?; What is the story behind using one/two lines \(=, ||\) etc. on some currency symbols?](#)).

The \$ sign is used for both the Dollar and the Peso because in the 18th century (and up to some point in the 19th) the dollar and the Peso were the same. In the 16th century the Spanish and Holy Roman empire both used coins that weighed 451 Troy grains of silver. The German name was Thaler shortened from Joachimsthaler which became the English Dollar. The Spanish name was the Peso, originally abbreviated to PS. The best documented explanation suggests that the Dollar sign evolved out of the Spanish and Spanish American [scribal abbreviation](#) "PS" for pesos. The "S" gradually came to be written over the "P" developing a close equivalent to the "\$" sign. A number of Latin American countries name their currency as the Peso but use the Dollar sign. Allegedly, when shopping in Mexico, a single bar is used for Peso and the double is used for Dollars.

A more comprehensive review is offered by Roy Davies ([The Word "Dollar" and the Dollar Sign \\$](#), University of Exeter, 7 December 2020.)

Representation of dollar sign in 3D using Möbius strip

As a design exercise, the assumption is made here that the 2D representation of the dollar sign can be explored for great significance as the projection of a more complex representation in 3D -- indicative of subtler insights and alternative understandings. The line delineating the "S" of the "\$" can then be assumed to be a strip, as is implied to a degree in the images on the right above.

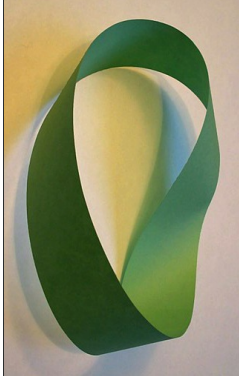
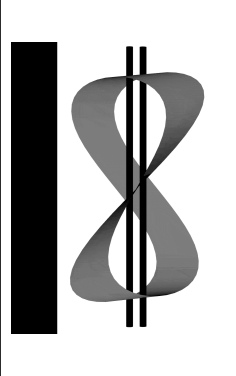
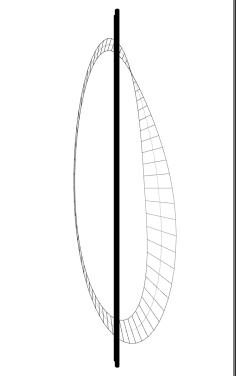
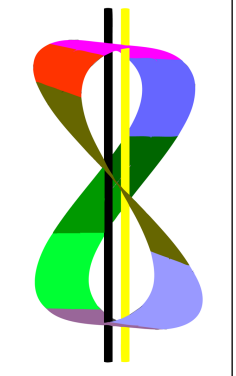
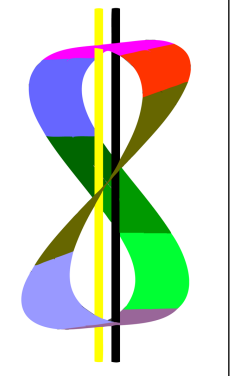
Potentially of greater significance is to make use of the paradoxical form of the much studied [Möbius strip](#) -- as a device of requisite complexity for holding any "twisted" understanding of capitalism. The image on the right above gives some indication of the derivation of the "S" form from such a strip.

As widely understood, the Möbius strip is a surface that can be formed by attaching the ends of a simple strip of paper together with a half-twist, as normally depicted by the image on the left below -- for example. The strip or loop is a [non-orientable](#) surface in mathematical terms, meaning that within it one cannot consistently distinguish clockwise from counterclockwise turns. Use of the Möbius strip for this exercise raises the question as to whether its peculiar form is appropriate to the challenge of mapping the conceptual complexities of capitalism in contrast with the variety of mind maps and system diagrams conventionally used in 2D.

The animations in the central images below offer an indication of how the 3D representation of the dollar form can be represented dynamically as a Möbius strip.. Use is made of the 2-line form of the dollar typeface. The contrasting shading by which the 3D nature of that form becomes apparent can be replaced by coloured bands across the strip, as shown in the images on the right -- one being a reflection of the other -- to which the vertical lines of the dollar sign are added.

The colouring of the 3D animation helps to show how the 2D image (above right) has been "trimmed" from the 3D form -- where such

trimming may be indicative of systemic connections which are ignored in considering the relation between "capitalism" and the "dollar".

Derivations of an enhanced dollar sign derived from a Möbius strip				
Möbius strip	Rotation of strip (with bars of dollar)	Rotation of strip (wire frame variant)	Coloured variant (one view)	Coloured variant (rotated view)
				
David Benbennick, CC BY-SA 3.0, via Wikimedia Commons				

As an abstract [topological space](#), the Möbius strip can be embedded into three-dimensional [Euclidean space](#) in many different ways: a clockwise half-twist is different from a counterclockwise half-twist, and it can also be embedded with odd numbers of twists greater than one, or with a knotted centerline. Any two embeddings with the same knot for the centerline and the same number and direction of twists are [topologically equivalent](#). **The much-discussed paradox of the Möbius strip is that it has only one side** in 3D with only a single [boundary curve](#) or edge (although when embedded in other spaces, the Möbius strip may indeed have two sides).

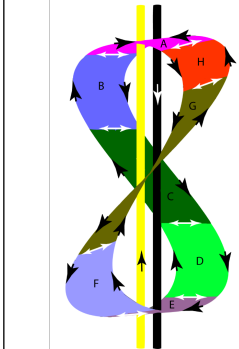
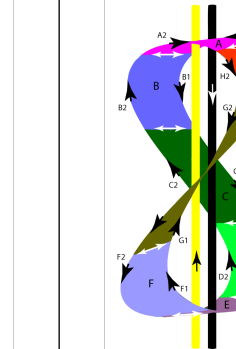
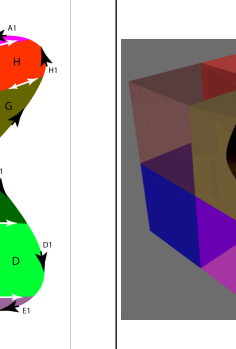
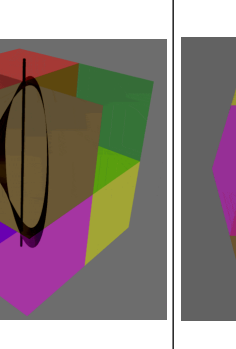
The question here is whether these unusual features offer an as yet unexplored means of holding contrasting understandings of capitalism -- whether appreciated or deprecated.

Dollar sign in 3D as a template for mapping features of capitalism

The question for this exploration is how the coloured bands of the 3D variant (together with its other features) can then be used as a "template" for an array of features deemed to be characteristic of capitalism. The focus here is on identifying the design elements of the template -- rather than on selecting from the distinctive characteristics variously presented in the mind maps and system diagrams to which reference is made above. This is an exercise for the future.

The image on the left below suggests (arbitrarily) an array of 8 zones, labelled A to H. The two **apparent** edges of the Möbius strip can be used to indicate distinct systemic processes, marked with black arrows, with the suggestion that these only **appear** to move in 2 contrasting directions -- when **the reality of the strip is that it has only a single edge**. White bidirectional arrows can then be used to suggest systemic links between them at the boundaries between each zone. In the image on the right, the black arrows are distinctively labelled. The 2-edge illusion invites systemic interpretation.

Another approach is indicated by the animations on the right. In one case the Möbius strip rotates within a cubic configuration of 8 distinctively coloured zones. Each octant zone is then held to be indicative of a particular mode of understanding capitalism. Colours could be chosen to reflect such distinctions. An alternative design approach would be to position the Möbius strip within the cubic configuration, but without rotation. That static presentation could of course be rotated as a whole, as shown far right.

Labelling of Möbius strip with dollar bars		Embedding of Möbius strip in configuration of 8 cubes	
Zone labelling	Zone and process labelling	Rotation with cube	Rotation of cube
			

Use of a cubic configuration of octants is discussed separately (*Non-linear pathways curving between octants*, 2020; *Psychosocial and strategic implications of distinct octants*, 2019). Those explorations focus on the unexpected insights to be derived from the stitching curve common to the tennis ball and baseball -- potential alternatives to the Möbius strip (as indicated below) .

The cognitive implications of the Möbius strip have been extensively explored by [Steven Rosen](#) (*Science, Paradox, and the Moebius Principle*, 1994; *Dimensions of Apeiron: a topological phenomenology of space, time and individuation*, 2004). The coloured zones

suggest a means of distinguishing -- and relating -- contrasting views of capitalism, as discussed separately (*Interrelating Multiple Ways of Looking at a Crisis*, 2021).

Capitalism pros, cons and contradictions

There is no lack of studies and commentary regarding the pros and cons of capitalism:

- Louise Gaille: *17 Pros and Cons of Capitalism* (*Vittana*, 27 May 2017) -- identifying 8 pros and 9 cons.
- Tejvan Pettinger: *Pros and Cons of Capitalism* (*Economics Help*, 20 October 2019) -- identifying 5 pros and 5 cons
- Natalie Regoli: *21 Capitalism Pros and Cons* (*ConnectUs*, 14, December 2018) -- identifying 8 pros and 13 cons
- John Spacey: *38 Pros and Cons of Capitalism* (*Simplicable*, 13 June 2022) -- identifying 21 pros and 17 cons
- Keith Miller: *23 Advantages and Disadvantages of Capitalism* (*FutureofWorking*) -- identifying 12 pros and 11 cons
- Jordon Layne: *Key Pros and Cons of Capitalism* (*Ablison*, 4 February 2023) -- identifying 5 pros and 6 cons
- Abiodun Adegbenro: *What Are the Pros and Cons of Capitalism?* (*A Soothing Living*, 13 January 2023) -- identifying 11 pros and 12 cons
- Randy McClure: *Capitalism Pros And Cons – More Freedom, Less Security, Not Fair?* (16 November 2022) -- identifying 9 pros and 9 cons
- Brandon Gaille: *18 Top Advantages and Disadvantages of Capitalism* (26 April 2018)
- *What are the pros and cons of capitalism?* (*Parlia*, 23 May 2020) -- identifying 5 pros and 5 cons
- *Pros and Cons of Capitalism: Is capitalism the best economic system?* (*Netivist*, 2022) -- identifying 5 pros and 5 cons
- *12 Pros and Cons of Capitalism* (*MyProsAndCons*) -- identifying 12 pros and 12 cons
- *Pros and Cons of Capitalism* (*Morning Coach*, 31 March 2022) -- identifying 6 pros and 6 cons
- *8 Pros and Cons of Capitalism* (*Asia-Pacific Economics Blog*, 11 August 2016) -- identifying 5 pros and 3 cons
- *29 Interesting Pros and Cons of Capitalism* (*Environmental Conscience*)

Contradictions? As noted above, the [internal contradictions of capital accumulation](#) are an essential concept of [crisis theory](#), which is associated with [Marxist economic theory](#). The economic geographer [David Harvey](#) argues that the multi-stage process of capital accumulation reveals 9 internal contradictions (*Enigma of Capital: and the crises of capitalism*, 2010; *The Enigma of Capital and the Crisis this Time*, *American Sociological Association*, 16 August 2010).

Especially intriguing is that none of these commentaries appear to consider it to be of any value to configure their insights in systemic and diagrammatic terms. **How might capitalism be succinctly depicted and why is no effort made to do so** -- other than by caricature? On what kind of mind map might the insights be distinguished and interrelated to reconcile their contrasting perspectives?

Axes of bias? Given the plethora of studies on capitalism, and the crisis with which it is held to be associated at this time, it is curious that there would appear to be little effort to analyze the array of perceptions from a systemic perspective. What engenders contrasting understandings of capitalism? One methodological approach to disagreement on these matters is the philosophical identification of axes of bias by [W. T. Jones](#) (*The Romantic Syndrome: toward a new method in cultural anthropology and the history of ideas*, 1961).

Enneagram? Of related interest is the approach from the perspective of management cybernetics by [Stafford Beer](#) (*Beyond Dispute: The Invention of Team Syntegrity*, 1994). Curiously incidental to that study, focused on the organizing role of the icosahedron, was the recognition that an [enneagram](#) was embedded within that 3D configuration. Interest in the enneagram has however focused primarily on its value for distinguishing 9 personality types (Joshua N Hook, et al, *The Enneagram: a systematic review of the literature and directions for future research*, *Journal of Clinical Psychology*, 77, 2021, 4; Erik Schwarz, et al, *DAS²-Theory of Personality: a cognitive approach to the enneagram*, *Psychology*, 8, 2017, 11).

Although less evident in the literature, the enneagram can also be employed in the organization of collective undertakings ([A. G. E. Blake](#), *The Intelligent Enneagram*, 1996). It is then appropriate to ask why such methodologies are not used to order disparate systemic insights into capitalism and its crises. There is therefore a case for exploring its configuration in 3D, following the discovery of Beer (*Visualization of enneagram in 3D and its icosahedral embedding*, 2019).







Eagle as basis of heraldic projection of higher dimensionality of dollar capitalism

As noted by D. Wayne Johnson:

Heraldry is very important to [numismatics](#) because of its influence in symbolism and the widespread use of coats of [arms](#) that appear on coins and medals. These arms have been established for countries, states, provinces, municipalities, corporations, firms, families, universities, church organizations, other institutions and organizations. Heraldry is very symbolic. It has a technical language all its own and prescribed rules for designing and describing the coats of arms. ([Heraldry](#), *An Encyclopedia of Coin and Medal Technology For Artists, Makers, Collectors and Curators*)




The intimate relation between coins and heraldry is further discussed by David F. Phillips (*Coins As a Heraldic Resource*, *Heraldry News*, 56, 2012, December).

Birds, and especially wings, remain evident in national symbols (on flags, seals and coins), but their systemic implications would seem to have been completely lost. As noted separately, the [heraldic eagle](#) is however a common feature of empires from the period of Imperial Rome to its present use by the USA and other countries (*Symbolic Insignia Indicative of Global Health*, 2021). The following images are reproduced from an earlier discussion of relevant insights for global governance from birds-on-the-wing to the dodo ([Counteracting](#)

Heraldic eagles of empires past and present					
Roman Empire	France (Napoleonic)	Germany	USA	Russia (1917)	Spain
					

As [Aquila](#), the standard of a legion of the Roman Empire, the eagle had quasi-religious importance to the Roman soldier, far beyond being merely a symbol of his legion. To lose a standard was extremely grave, and the Roman military went to great lengths both to protect a standard and to recover it if it were lost.

If such images are indicative of normality -- of a state of "flying normally" as conventionally imagined -- then it is appropriate to explore visual representations of the abnormality with which crises and responses to them are associated (as with the pandemic). This is crudely suggested by the animations below -- with each state oscillating between extremes of imbalance typical of the dynamics between the strategic preferences of opposing factions in government. How indeed does an eagle "fly" when understood as emblematic of the coherence of governance? Balance is then understood as an essentially unattainable ideal -- a myth of static invariance in contrast with a dynamic reality. .



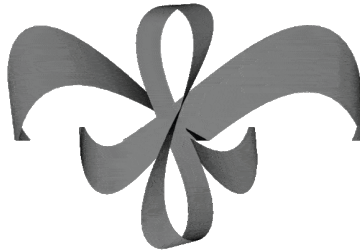
Animations of potential systemic imbalance implied by conventional national insignia		
USA	Russia (1917)	UK
		

In the case of the dollar as a symbol of the hegemonic aspirations of capitalism -- central to the global strategy of the USA -- it is therefore of interest to consider how representation of the dollar might be embedded or implied by the primary heraldic symbol of the [Great Seal of the USA](#). The question is especially intriguing in the light of the design explorations above using the Möbius strip.

In the spirit of paper manipulation, there are many accessible examples of [origami](#) construction of an eagle on the web, and how to achieve this. Could the Möbius strip, or several of them, be used to represent an eagle? To the extent this is possible, it might then be argued that both the eagle of the Great Seal, and such a configuration, are projections of higher systemic dimensionality whose appealing characteristics are only dimly or intuitively recognized.

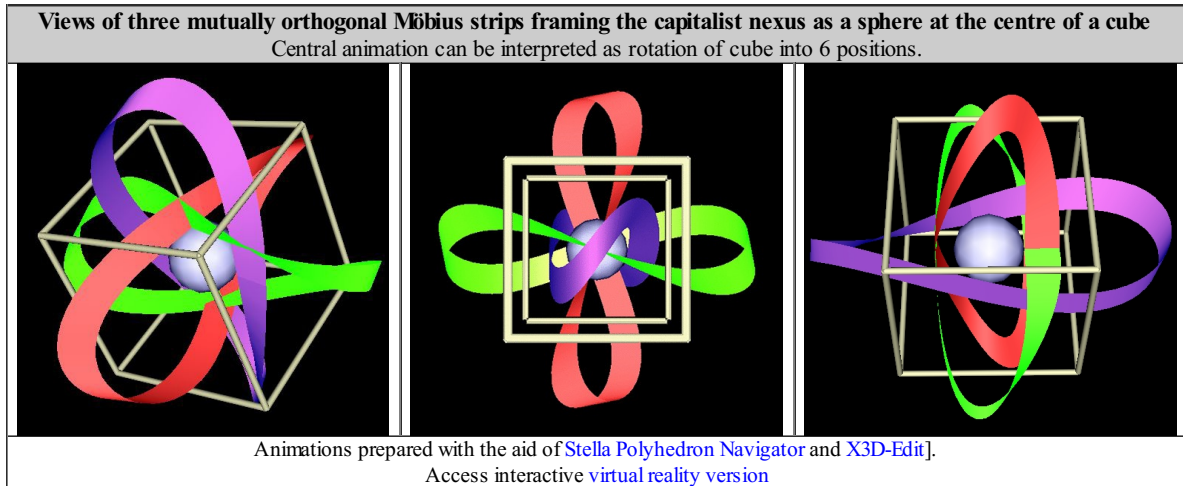
Deriving a schematically recognizable eagle from paper strips can be explored as a cognitive challenge in its own right (Marlynn Wei, [5 Ways Origami Boosts Mindfulness](#), *Psychology Today*, 2 September 2016; Cara Wallin, [Using Origami to Practice Mindfulness and Create a Growth Mindset](#), *The Teachers Institute*, 2018; Jom Morrison, [How Origami Is Revolutionizing Industrial Design](#), *Smithsonian Magazine*, 23 April 2019)

The central image below is one crude attempt at the use of 3 Möbius strips (or parts thereof) to represent the wings, claws, head and tail of an eagle -- potentially to be understood as carrying the complex significance of the dollar. The animation on the right uses a dynamic to represent the dollar-eagle to a higher degree -- with flapping wings, grasping claws, and changing orientation of the head. Such dynamics are only implied, if at all, in the static image of the Great Seal.

Deriving an eagle from Möbius strips through origami		
Greater coat of arms of the United States	Schematic Eagle from 3 Möbius strips	Animated schematic of Eagle from 3 Möbius strips
		
US Government , Public domain, via Wikimedia Commons		

Experimental representation of capitalism as 3D configurations of Möbius strips

In contrast to the representations above in 2D, one approach to depicting the complex nature of the coherence of capitalism as a viable system -- whose integrative nature is variously intuited -- is to make use of 3 mutually orthogonal Möbius strips, as shown below. The images are reproduced from an earlier exploration (*Confusion in Exchanging "Something" for "Nothing"*, 2015). That earlier argument focused on the cognitive implication in the asymmetrical processes of begging and its surrogates, extending the exploration to the use of 6 Möbius strips.









Flight as a strategic metaphor in relation to eagle and dollar?

The ability of a strategy to "get off the ground" and "fly" is a metaphor widely used. The eagle is illustrative of that capacity -- in contrast to the turkey (an earlier proposed alternative to the eagle in US symbolism). The metaphorical focus on "wings" in politics, together with the use of paired laurel wreaths with respect to global strategic initiatives, suggests a degree of intuitive appreciation of more subtle dynamics of which the eagle-dollar complex is necessarily a simplification. Curiously a particular consideration is given to **"capital flight"**.

A different possibility can be imagined through recovering the sense of wings implied by the opposing laurel branches of convention and then recognizing the dynamics such wings might imply. This is the purpose of the following animations -- which could obviously be rendered more elegant with greater skill, and with greater inspiration from bird wing movement, as required to sustain flight. Variants could also be explored to indicate the movements required for "strategic take-off" as a prelude to sustainable flight.

Of particular interest is the manner in which the distinct leaves in each branch offer reminders of the various forms of feather on the wings of a bird. Also of relevance to the argument here is the **vital role for controlled flight, of those at the extreme tips of each wing, with regard to the potential necessity of radical extremes in socio-political systems**. As suggested by the earlier images, the wings and their feathers could be variously coloured in a more sophisticated animation -- possibly one in which the perceived colours changed with the light, as in the case of bird wings. The individual feathers could be associated with the distinct ideological factions of each political wing -- and appropriately coloured. The animation on the right could be further improved by having the symbolic globe rotate according to the rhythm of the beating wings.

One such exercise focused on the additional significance potentially evident from the dynamic representation in 3D of the laurel wreath framing, as reproduced below (*Helical insights from 3D representation of Laurel wreath and Caduceus*, 2019).



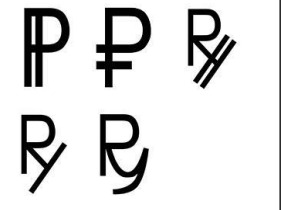
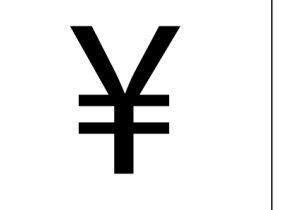
Insights from 3D representation of laurel wreath in relation to globe					
Roman Aquila	United Nations emblem	Laurel wreath: static symbol of binary completion or sacred flame	Laurel wreath spiral (upright rotation)	Laurel wreath spiral (inverted rotation)	Animation of a bewinged globe in flight
					

Given the significance currently attached to collective logos, interactive experiments with further possibilities are presented separately (*Eliciting Insight from Mandala-style Logos in 3D*, 2020).

Symbols of major currencies: Pound / Yuan / Ruble / Euro

The assumption of this exercise is that the symbol associated with monetary tokens of transactions is chosen and used as a meaningful lens through which the dynamics of a society may be viewed. Distinctive symbols chosen by any culture then reflect distinctive ways of perceiving those dynamics. This is similar to the distinctive symbols distinguishing different religions and vital to the sense of identity of their believers. A further possibility is that each such symbol offers a window on what are essentially the same dynamics -- but seen from distinctive perspectives, again as may be claimed with respect to religions in the light of intuitions of any interfaith understanding.

Currencies, and the manner in which they engage belief, could well be explored as "belief systems" -- if not "religions" from a systemic perspective (Bruce Poinsette, *Currency as Religion*, 8 October 2011). It is therefore appropriate to consider whether and how other major currencies invite explorations similar to that above for the dollar. Examples are presented below.

Indicative symbols of major currencies			
Pound sign fonts	Euro sign fonts	Ruble sign alternatives originally proposed (2nd chosen)	Yuan and Yen sign
			
By Kes47 Own work, CC BY-SA 4.0, Link	By Sergio Georgini Own work, CC BY-SA 3.0, Link	By Litvinov.aa Own work, CC BY-SA 3.0, Link	

Common design elements? The seemingly distinctive signs invite the question as to what design features they have in common. Would the degree of commonality increase were the 2D symbols to be (imaginatively) understood as projections of forms in 3D or more? As noted above, the question gave rise to an earlier 3D-focused exploration with respect to major religions (*Reconciling Symbols of Islam, Judaism and Christianity*, 2017). It might also be asked how a religion can be understood as functioning as a currency (*Circulation of the Light: essential metaphor of global sustainability?* 2010; *Enabling Moral Currency Circulation*, 2010).

Whilst the origins of the dollar symbol and design are variously mysterious and contested, it is strange that the **euro sign** emerged from a secretive process. There were originally 32 proposed designs for a symbol for Europe's new common currency; the Commission short-listed these to ten candidates. These ten were put to a public survey. After the survey had narrowed the original ten proposals down to two, it was up to the Commission to choose the final design. Strangely the other designs that were considered are not available for the public to view, nor is any information regarding the designers available for public query. This secrecy is an invitation to satirical speculation (*Euro = 100 Eurines? Derivation of euro and its cross-cultural implications*, 2001).

Double stroke? Especially intriguing is the extent to which a double stroke features in some fonts for each currency, as with the dollar. From a heraldic perspective, a double "bar" of two parallel lines features in the **two-barred cross**. One simple explanation is that, whether single or double, a line is a recognizable feature of any accounting system with which a currency is associated -- potentially deriving from early use of the abacus. In the case of the Euro, the two parallel lines are alleged to indicate stability. For some there is however the more speculative aesthetic that the lines are suggestive of the **staff** of musical notation (Charles Justice, *Debt and Money: facing the music*, *Permaculture News*, 21 June 2013; *Why do we do things 'to the tune of' an amount of money?* *English Language and Usage*).

Also intriguing is the orientation of the double bar, which is horizontal in all the examples -- with the exception of the dollar. This suggests a question relating to direction of reading, as discussed separately (*Unquestioned Bias in Governance from Direction of Reading?* 2016). This explored the political implications of reading from left-to-right, right-to-left, or top-down (but not bottom-up).

Juxtaposition? There is a case for juxtaposing the currency symbols to evoke any sense of what they may imply together through the visual similarities between them -- potentially offering an unusual insight into global transactional dynamics (*Types of Currency in the World: list with symbols*, *StackYourDollars*, 2 May 2020; *Currency Symbols of the World Listed*, *Jeton*; Gert Svaiko, *Different Currency Symbols of the World*, *Wise*, 13 May 2022). To this end 6 major currencies are mapped onto a cube in the animation on the left below. That could be contrasted with a mapping of:

- the 8 major currencies used most often in the foreign exchange market (USD, the Euro, the Japanese yen, the British pound, the Australian dollar, the Canadian dollar, the Swiss franc), and the New Zealand dollar). -- potentially configurable for mnemonic purposes on the faces of an octahedron
- the most 8 traded currency pairs (Euro/Dollar, Dollar/Japanese Yen, British Pound Sterling/US Dollar, Australian Dollar/US Dollar, US Dollar/Canadian Dollar, US Dollar/Swiss Franc, New Zealand Dollar/US Dollar, and Euro/Japanese yen) -- again configurable on an octahedron.

Experimental animations of currency symbols potentially evocative of global systemic insights		
Animation of major currency symbols onto folding/unfolding cube	Mapping of G20 currencies onto rotating icosahedron (EU as 20th)	Folding/Unfolding icosahedral mapping of G20 currency symbols



National identities? There is a degree of recognition of the extent to which currencies are one means through which a sense of national identity is sustained:

- Eric Helleiner: *National Currencies and National Identities* (*American Behavioral Scientist*, 41, 1998, 10)
- Lutz Marten and Nancy C. Kula: *Meanings of Money: national identity and the semantics of currency in Zambia and Tanzania* (*Journal of African Cultural Studies*, 20, 2008, 2)
- Jacques E. C. Hymans: *The Changing Color of Money: European Currency Iconography and Collective Identity* (*European Journal of International Relations*, 10, 2004, 1)
- Jacques E. C. Hymans: *East is East, and West is West? Currency iconography as nation-branding in the wider Europe* (*Political Geography*, 29, 2010, 2)
- Cristina Jakob: *Money as a Symbol of State Power and Code for Identity and Mentality* (*FOMOSO*, 24. August 2022)
- *The sovereignty of money and the identity of people* (*La Politique Internationale*, 170)

Psychological implications? Strangely there is seemingly little focus on the psychological implications of the form of currency symbols as such -- in contrast to the swastika (for example). Much greater emphasis is placed on the symbolism on *banknotes* (*Hidden Symbols and Meanings on Currencies Around the World*, *Banknote World*, 17 August 2017; *Ever Wondered What the Hidden Symbols in these Currencies Depict*, *WorldTruth.tv*). This is especially the case with respect to the dollar bill (Joe Dubs, *Decoding the Dollar: the calendar of the feathered serpent*, *Esoteric Geometry*, 19 December 2016; Brooky Stockton, *The Symbols on the Dollar Bill: mystery meanings*)

Of relevance to the argument here is the question raised in *Quora*: *Why do so many currency symbols have strikethroughs in them, for example, \$, £, € and ₹?* One respondent suggests that it comes from the habit of crossing cheques, underlining important parts.

Especially valuable to the exploration of the potential significance of the dollar symbol is the methodology of the study by John Fornäs of the euro symbol, so notably featured on coins throughout the euro zone (*Reading the Euro: Money as a Medium of Transnational Identification*, Linköping University, 2007). Portion of that study are published as *Meanings of Money: The Euro as Sign of Value and of Cultural Identity* (In: *We Europeans? Media, Representation, Identities*, Intellect Press, 2008). The study was undertaken as a consequence of a focus on cultural identities within the European Science Foundation.

Fornäs introduces his study with the comment:

I suddenly became aware of the presence of money not only as economic signs of value but also as symbolic signs of cultural identity of geographic and political unities. They are used for instrumental purposes of regulating exchange, but regardless of the ordinary lack of signifying intentions of each individual user, they function as communicative forms as well -- as kind of minimalist media, distributed by state formations for use and interpretation among citizens and visitors. Through their carefully planned designs, the euro coins and notes presented an embryonic premonition of a possible shared European identity, transgressing intra-European national borders while contributing to the unification of Europe as one political-economic unit in contrast to the external world...

This comparative study of euro and pre-euro coins and banknotes as symbolic texts and media artefacts looks for changing national and supranational identifications in these official but widespread signs of economic and cultural value. How are facets of a joint European project signified in the common European images and national coin sides? How do they contribute to the shaping of a continentally shared cultural identity, in relation to previous national currencies?

Missing is a complementarity study on *Reading the Dollar*, given the explicit hegemonic agenda of the USA. Is the dollar design effectively weaponised in the emerging forms of *information warfare* and *memetic warfare* (previously termed *psychological warfare*) and their development into *cognitive warfare*? (Kathy Cao, Sam Bishop, et al, *Countering Cognitive Warfare: awareness and resilience*, *NATO Review*, 20 May 2021; Jeff Giese, *It's time to embrace memetic warfare*, *NATO Strategic Communications Centre of Excellence*, 2020; *Noopolitics and memetic warfare within the noosphere*, 2014).

Generative design? As designs, especially given the variants in different typeface fonts, there is an intriguing possibility that their design derives from a set of simple processes. These are evident in any use of software such as Adobe Illustrator or Inkscape to manipulate and transform any form. These contrast with exploration of morphing between currency symbols, However there is a case for exploring whether there is a pattern to the software operations engendering distinctive currency symbol designs. Expressed otherwise, how many such operations are required to transform from one currency symbol to another?

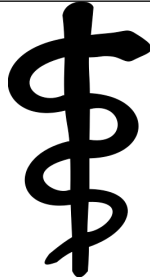


This question is similar to that by which any one symmetrical polyhedron can be transformed into another. Understood in terms of

[Conway polyhedron notation](#), what are termed symmetry preserving operations, named by abbreviations as including: x, xd, d dx, dxd, as discussed separately (*Cognitive operations potentially analogous to generation of tiling patterns*, 2021). In visual terms this would then suggest an underlying similarity between currencies of significance to their psychological implications in a fragmented world.

Implication of potentially related symbols: Hygieia, Asclepius and Caduceus?

There is clearly a case for exploring any trace of the influence of the design of earlier symbols on how the dollar symbol emerged. Again the argument is that these may reflect intuited insights into aspects of systemic coherence of which the dollar is a current exemplification.

To the extent that monetary transactions, especially as enabled by the dollar, are associated with the "health" of a society -- if only in an economic sense, it is curious to note that traditional symbols inviting some comparison are variously associated with health in a physical sense. Thus the [Rod of Asclepius](#) is one of the most ancient and important symbols related to medicine in western countries. The [Caduceus as a symbol of medicine](#) is the traditional symbol of [Hermes](#) and features two snakes winding around an often-winged staff. By contrast, the [Bowl of Hygieia](#) is a traditional symbol of pharmacology.

Traditional symbols associated with physical health		
Rod of Asclepius a symbol of medicine	Bowl of Hygieia a symbol of pharmacology	Caduceus a symbol of medicine (rotation)
		
Lusanaherandraton , Public domain, via Wikimedia Commons	David , USA, CC BY-SA 3.0, via Wikimedia Commons	







Appropriate to any association of the Caduceus with the dollar is the emblematic role of [Hermes](#) with respect to commerce -- and especially that of the current [military-industrial complex](#). Recent events have highlighted the emergence of a corresponding [medical-industrial complex](#) (or [pharmaceutical-industrial complex](#)) -- offering similar associations to the symbols above (see *Wikipedia* list of "[industrial complexes](#)"). The snake imagery of the Bowl of Hygieia offers particular associations to the global vaccination strategy of the WHO in response to pandemic.

Personal embodiment of symbolism common to monetary tokens

It is intriguing to note the emphasis increasing made with regard to personal computer devices as "[wearables](#)". This follows a trend over millennia in which status is indicated by clothing and accessories -- notably including weapons, jewelry and watches. Controversy surrounds the wearing of religious symbols. It could then be asked whether traces of the dollar symbol can be recognized as "wearable". Is the dollar wearable in some manner -- other than as a status symbol of wealth?

To the extent that "health" and its achievement are indicative of systemic integrity and viability, it is intriguing to note how visual traces of the symbolism may be personally embodied -- whether those of monetary tokens or of more traditional symbols. Such associations are potentially to be seen in the design of ceremonial clothing and heraldry (conventions for a coat of arms).

Heraldic bend: In heraldry, a [bend](#) is a band or strap running from the upper dexter (the bearer's right side and the viewer's left) corner of the shield (or coat of arms) to the lower sinister (the bearer's left side, and the viewer's right). That more common bend is occasionally called a [bend dexter](#) when it needs to contrast with the [bend sinister](#), which runs in the other direction.

Heraldic and ceremonial designs					
Heraldic shield Bend dexter	Sash (dexter) <i>George Washington</i> (1779)	Heraldic shield Bend sinister	Sash (sinister) Prince William with Garter Riband (2011)	Ceremonial collar Former President of the Republic of Suriname	Ceremonial livery collar
					
Public domain, via Wikimedia Commons	Public domain, via Wikimedia Commons		CC BY 2.0, via Wikimedia Commons;	Pieter Van Maele , CC BY 3.0, via Wikimedia Commons;	

Sash: As indicated above, the heraldic bend is echoed in the role of the [sash](#), and its indication of the importance associated authority.

This is a band of material worn around the body, either draping from one shoulder to the opposing hip and back up, or else running around the waist. The sash around the waist may be worn in daily attire, but the sash from shoulder to hip is worn on ceremonial occasions only. Ceremonial sashes are also found in a V-shaped format, draping straight from both shoulders down, intersecting and forming an angle over the chest or abdomen.

Continuing use of sashes is made by the military in formal attire. With the genesis of complex systems of military and civilian awards during the 18th century in most European countries, sashes became a distinguishing part of decorations and are mostly worn along with medals or orders. Today most of the European royal families wear sashes as a part of their royal (and/or military) regalia. Curiously these developments correspond to the period in which the design of the dollar symbol emerged.

The sash is also used for more ceremonial and less practical purposes, notably in the USA. Sashes are used at higher education commencement ceremonies, by high school homecoming parade nominees, in beauty pageants, as well as by corporations to acknowledge high achievement.

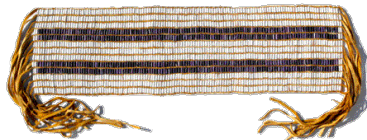


Corresponding curiously to the sash -- and effectively a weaponised variant thereof -- is the [bandolier](#) (as illustrated below). This is a pocketed belt for holding either individual bullets, or belts of ammunition. It is usually slung sash-style over the shoulder and chest, with the ammunition pockets across the midriff and chest. Similarly -- in "dexter" style -- a [baldric](#), [sword frog](#) or [Sam Browne belt](#) may feature in military uniforms, especially for ceremonial purposes where a sword is carried.

Modern bandoliers		
"Dexter"	"Sinister"	Double bandolier
		

Given reference to the Möbius strip in this argument, it is intriguing that such a strip can not be worn as a sash because of the particular twist which defines it. However it is evident that corresponding to a twist is some form of knot at the hip. In the case of the bandolier this may be the location of a weapon, as indicated in the image above right.

Wampum belts: Woven belts composed of strings of beads are formed into belts known as [wampum](#), according to the tradition of the Native Americans of the Eastern Woodlands. They have been used for storytelling, ceremonial gifts, and recording important treaties and historical events, such as the [Hiawatha Belt](#). They have also been used as a means of exchange, and were adopted as such by the earlier European colonists as legal tender in New England from 1637 to 1661 -- prior to use of the dollar.







Wampum belts were used as a memory aid in oral tradition, and were sometimes used as badges of office or as ceremonial devices in indigenous cultures, such as the [Iroquois](#). The [Two Row Wampum Belt](#) (below left) was claimed to embody the [Two Row Wampum Treaty](#), recording the first agreement between Iroquois and European settlers in 1613.

Representation of Two Row Wampum Belt	Two Row Wampum Renewal Campaign (1613-2013)	
	Campaign Poster (with Two Row Wampum Belt)	Peace Walk with Wampum Belts (on the occasion of the Renewal Campaign, 2013)
		

As discussed separately, wampum had some functions similar to the [Quechua](#) recording devices ([Quipu](#)) of the Andes region -- systematically repressed by the Catholic Church on behalf of the European colonists. These were made of knotting and dyed strings ([Quantum Wampum Essential to Navigating Ragnarok](#), 2014). Of some relevance is the fact that wampum -- now a general term -- was restricted by the Indians to the white beads (*wompi*, "white"), whereas the dark beads were called *suckáuhock*. According to Ashbel Woodward ([Wampum](#), 1878), it thus appears that the Indians divided their beads into two general classes, the white beads, and the dark beads -- a distinction now lost in more general use of the term.

Mark of honour and distinction: In addition to the role of livery collars, chains of office, and other marks of identity, the widespread use of medals highlights a modern function of "wampum", as discussed separately ([Wampum and its modern variants](#), 2014). These may be awarded to a person or organization as a form of recognition for sporting, scientific, academic, or various other achievements (see [Wikipedia List of famous prizes, medals and awards](#)) -- but most notably as [military awards and decorations](#), [service ribbons](#), and [campaign medals](#).

Service Ribbons (reproduced from Wikipedia)		
General George S.	Admiral of the Fleet	Ecuadorian General

Patton (USA)	Louis Mountbatten	Paco Moncayo	As variously worn		
	 (incomplete)				

Equivalent to some uses of wampum (and the sash) is the [livery collar](#) or chain of office (usually of gold), worn as an insignia of office (or a mark of fealty or other association). *Wikipedia* distinguishes: [Private livery collars](#), [Renaissance chains](#), [Mayoral collars](#), [Collars of orders of knighthood](#), and [Collars of Freemasonry](#).

Stakeholding: As discussed separately, extensive use is currently made of "stakes" with respect to any investment or commitment -- with those implicated named as "stakeholders" (*Planetary Impalement by Stakeholder Capitalism?* 2023). This was explored as a strategic metaphor especially promoted by the World Economic Forum with respect to the so-called [Great Reset](#) -- noting the [paradigm shift from "share" to "stake"](#).

It is therefore intriguing to note how the iconography of currencies, and notably the dollar, features one or two "stakes" as vertical or horizontal bars.

Necktie: In curious contrast to the angled use of a sash across the shoulder, the [necktie](#) is obviously looped around the neck (where it is typically knotted) in order that the two ends should hang vertically. The use of coloured and patterned neckties may be used to indicate the wearer's membership in a club, military regiment, school, or professional association. They may be required by the [dress codes](#) of institutional and corporate environments, especially those of Western countries.

The most common pattern for such ties in the UK and most of Europe consists of diagonal stripes of alternating colors running down the tie from the wearer's left (as with the sash and bend "sinister"). Typically, American striped ties have the stripes running downward from the wearer's right (as with the sash and bend "dexter").

Again it can be argued that the two ends of a tie hanging vertically, together with the diagonal stripes, curiously recall the design of the dollar.

Harness? As mentioned above, it is intriguing to note the unacknowledged familiarity with the seam pattern shared by the tennis ball and the baseball -- the subject of a mathematical theory (*Interactive display of generalized baseball and tennis-ball seam curves in 3D; Baseball Cap Implications in the Quest for Global Hegemony*, 2020; *Enabling flying capacity with "headgear" -- cognitively comprehended?* 2020).

Although that symbolic curve features in the design of the familiar baseball cap, it could be asked whether it can be "worn" otherwise. Curiously this is evident in some forms of harness worn by individuals, as in the case of the design of "external frame backpacks" and "load-hauling frames". It is also curious that Möbius features in the reference to one such design -- the [Möbius 35L Backpack](#). In that light a Möbius strip might be understood as "worn" -- folded over head and shoulders, with the twist associated with any buckle position at the waist.

Kundalini? With respect to any understanding of personal embodiment of dollar iconography, it is especially curious to note the traditional Hindu concept of [kundalini](#) -- central to the practice of yoga and featuring in modern spirituality and New Age thought (C. J. Jung, *Psychology of Kundalini Yoga*, 1999). The term refers to a coiled snake, recalling that design in the Western symbols of health and medicine depicted above.

The term derives its name from its focus upon the awakening of kundalini energy through regular practice. More curious in the light of the two bar form of the dollar is that two main forms of kundalini are distinguished: an upward moving kundalini (*urdhva*) associated with expansion, and a downward moving kundalini (*adha*) associated with contraction -- both depicted as associated with the human spine. As might be expected, attempts have been made to relate kundalini to capitalism (J. J. Semple, *Capitalism and Kundalini, Common Sense Kundalini*, 28 January 2010).

Alchemy? As one of the people upheld as having the most insight into the global financial system, [George Soros](#) has made use of [alchemy](#) as a metaphor in a widely commented study (*The Alchemy of Finance: reading the mind of the market*, 1988). This focus is evident in discussion of the dollar bill -- rather than the dollar symbol (Tracy R. Twyman, *The Alchemical Dollar: the magic and mystery of America's money*, 2006).

The alchemy metaphor is central to the Taoist meditation practices of China as described, for example, by Lu K'uan Yü (*Taoist Yoga: alchemy and immortality*, 1970). This is a feature of the "inner alchemy" of the practice of *Neidan*. The key process is described in terms of the metaphor "circulation of the light", as discussed separately (*Circulation of the Light: essential metaphor of global sustainability?* 2010). This has notably been highlighted by [Carl Jung](#) and [Richard Wilhelm](#) with respect to a Chinese classic, *The Secret of the Golden Flower (Tai Yi Jin Hua Zong Zhi)*.

Production ∞ Reproduction :: Capitalism ∞ Arsenalism?

Much emphasis is placed on the role of capitalism in enabling and enhancing **production**. Its viability as an economic system is intimately related to the devices by which it ensures productivity. This skill is curiously dependent on labour. It is in this sense that capitalism is strangely dependent on ensuring human **reproduction** -- as one questionable means of ensuring an adequate labour supply.

Framed in this way, the systemic viability of capitalism can be explored as effectively a Ponzi scheme in which it is the ever increasing

supply of labour and consumers which are essential to a form of growth which renders it sustainable (*Global Economy of Truth as a Ponzi Scheme*, 2016). The systemic relation between production and reproduction is problematically fundamental to criticism of capitalism from the perspective of socialism and communism. Although the relation can be readily described by economics to some degree, it is so charged with controversial psychosocial connotations that it is perhaps best represented by a Möbius strip: **Production** ∞ **Reproduction**

It is appropriate to compare that charged systemic relationship with another which is especially characteristic of **capitalism** and the strategic mindset which enables it. This can be usefully named as **arsenalism**, namely the extensive reference to genitalia and their exploitation as metaphors in the decision-making processes of capitalism, as discussed separately (*Mysterious Complementarity between Capitalism and Arsenalism*, 2020). Such references extend to the marketing through which the requisite consumption is enabled. The metaphors are as evident in policy discourse behind the scenes as they are in the implementation of capitalist practices. Curiously such metaphors are especially evident in the discourse of many films, where they notably feature as an indication of authenticity in dialogue.

That earlier exploration was organized in the following manner.

Capital and capitalism: etymology and connotations	Neglected systemic cycles mysteriously encoded in profanity?
Arsenal and arsenalism: etymology and connotations	Profanity as a compactification of an intuited multidimensional experience
Arse vs Ass: etymology and slang	Requisite new language implied by an unconscious secret language?
Problematic language for problematic times -- systemic function of "expletives"?	Towards a comprehensible encoding of higher dimensionality in sexual terms?
Relation between "capitalism" and "arsenalism" in practice	Cognitive "three ring circus": capitalism, alternativism, arsenalism?
Nature of a "missing link" between capitalism and arsenalism: role of a "hole"?	Mutual entanglement of "capital" and "arsenal" in practice

The strange relationship, especially charged in its own way with psychosocial connotations, might in turn be best represented by a Möbius strip: **Capitalism** ∞ **Arsenalism**. In this sense "Production ∞ Reproduction" and "Capitalism ∞ Arsenalism" merit recognition as complementary dynamics -- of which the dollar as a systemic symbol might well be fruitfully indicative. Aspects of the possibility are discussed separately (*Freudian economics underpinning stakeholder capitalism?* 2023).

Capitalism as hyperobject entangling hyposubjects?

GloboCap? The challenge of comprehending the complex manifestations of capitalism, with its array of proponents and critics, is usefully presented by [CJ Hopkins](#) (*The New Normal Left*, *OffGuardian*, 43, 4 April 2023). He names that complex as GloboCap -- an abbreviation for global capitalism (*The War Is Over...GloboCap Triumphs!* *The Unz Review*, 10 November 2020; *The Rise of the New Normal Reich*, *Consent Factory Essays*, 2022). For Hopkins:

It's one big global-capitalist world now. It has been since the early 1990s. GloboCap has no external adversaries, so it has nothing to do but Clear and Hold, i.e., wipe out pockets of internal resistance and implement ideological uniformity... In other words, GloboCap is going totalitarian... It is a new, global-capitalist form of totalitarianism. It displays a number of familiar features — suspension of constitutional rights, official propaganda, goon squads, censorship, ubiquitous symbols of ideological conformity, gratuitous restrictions of freedom of movement and other aspects of everyday life, hatred and persecution of official "Untermenschen", segregation, criminalization of dissent, mob violence, book burning, show trials, etc...

To understand it..., we need to understand global-capitalist ideology, which isn't as easy as it sounds. Global capitalism has no ideology ... or, rather, its ideology is "reality". When you have no ideological adversaries, you don't need an ideology... "Reality" is whatever you say it is, and whoever disagrees is a "science denier". or a "conspiracy theorist", or a "malinformationist", or some other type of deluded "extremist".

A quite different understanding of the complex in which people are embedded was offered by an early presentation of [Stafford Beer](#), prior to his involvement in facilitating [Project Cybersyn](#) during the presidency of [Salvador Allende](#):

Le Chatelier's Principle: Reformers, critics of institutions, consultants in innovation, people in sort who "want to get something done", often fail to see this point. They cannot understand why their strictures, advice or demands do not result in effective change. They expect either to achieve a measure of success in their own terms or to be flung off the premises. But an ultrastable system (like a social institution)... has no need to react in either of these ways. It specialises in equilibrical readjustment which is to the observer a secret form of change requiring no actual alteration in the macro-systemic characteristics that he is trying to do something about (*The Cybernetic Cytoblast: management itself*. Chairman's Address to the International Cybernetics Congress, September 1969)

Hyperobject? As discussed above, currency symbols -- and especially the dollar -- merit recognition as distorting glass windows through which the complex socio-economic system is (dimly) perceived and comprehended (confusingly). The nature of that system merits recognition as a hyperobject, as initially framed by [Timothy Morton](#) (*Hyperobjects Philosophy and Ecology after the End of the World*, 2013). These are entities of such vast temporal and spatial dimensions that they defeat traditional ideas about what a thing is in the first place.

As reviewed by [Laura Hudson](#):

Examples of hyperobjects include: black holes, oil spills, all plastic ever manufactured, capitalism, tectonic plates, and the solar system. Hyperobjects are often ancient or destined to be, like the sum total of Styrofoam and plutonium we have littered across the Earth over the past century, which will remain for millennia. A human being may see *evidence* of hyperobjects—pollution here, a hurricane there—but try gazing off into the distance to see the *totality* of them, or to the very *end* of them, and they disappear into a vanishing point. (*At the End of the World, It's Hyperobjects All the Way Down*, *Wired*, 16 November 2021)

As reviewed by Stephen Muecke, citing Morton:

"The panic and denial and right-wing absurdity about global warming are understandable. Hyperobjects pose numerous threats to individualism, nationalism, anti-intellectualism, racism, speciesism, anthropocentrism, you name it. Possibly even capitalism itself".

My political economist friends, who would scoff at Morton and quote David Harvey [mentioned above] to the effect that it is easier to imagine the end of the world than the end of capitalism, would miss the point. [Morton] would applaud what political economists do to analyze the workings of modern capitalism. It just isn't what he is doing, which is much more central to the core values of the humanities. (*Global Warming and Other Hyperobjects* *Los Angeles Review of Books*, 20 February 2014)

For Ursula Heise:

In working toward an environmental perspective beyond materialism and the here-and-now, *Hyperobjects* engages the important theoretical issue of scale, which implicitly or explicitly underlies many current discussions in the humanities about such concepts as big data, deep time, the Anthropocene, slow violence, and species thinking... The concept of hyperobjects -- 'things that are massively distributed in time and space relative to humans' (p. 1) and "genuine nonhuman objects that are not simply the products of a human gaze" (p. 199) -- is meant to address such large-scale configurations. (*Timothy Morton, Hyperobjects: Philosophy and Ecology after the End of the World* (review). *Critical Inquiry*, 4 June 2014).

As argued by Morton:

"Sustainable capitalism" might be one of those contradictions in terms along the lines of "military intelligence". Capital must keep on producing more of itself in order to continue to be itself. This strange paradox is fundamentally, structurally imbalanced...

Objects are what they are, in the sense that no matter what we are aware of, or how, there is, impossible to shake off. In the midst of irony, there you are, being ironic. Even mirrors are what they are, no matter what they reflect. In its ingenuous sincerity, reality envelops us like a film of oil. The mirror becomes a *substance*, an object. Hyperobjects push the reset button on sincerity, just as Neo discovers that the mirror no longer distances his image from him in a nice, aesthetically manageable way, but sticks to him. (*Unsustaining*, *World Picture Journal*, 5, 2011, Spring)

Hyposubjects? As later argued, by Dominic Boyer and Timothy Morton:

We live in a time of hyperobjects, of objects too massive and multiphasic in their distribution in time and space for humans to fully comprehend or experience them in a unitary way. A black hole is a kind of hyperobject, a biosphere is another. But in the Anthropocene many of the hyperobjects that concern us have human origins. For example, global warming. Or antibiotics. Or plastic bags. Or capitalism. These hyperobjects exceed and envelop us like a viscous fog; they make awkward and unexpected appearances; they inspire hypocrisy and lameness and dread. (*Hyposubjects: Theorizing the Contemporary*, *Fieldsights: Society for Cultural Anthropology*, 21 January 2016)

That argument is developed with respect to hyposubjects:

A certain kind of human has helped usher the world into the hyperobjective era. Let's call them *hypersubjects*. You will recognize them as the type of subjects you are invited to vote for in elections, the experts who tell you how things are, the people shooting up your schools, the mansplainers from your Twitter feed. Hypersubjects are typically, but not exclusively white, male, northern, well-nourished, and modern in all senses of the term. They wield reason and technology, whether cynically or sincerely, as instruments for getting things done. They command and control; they seek transcendence; they get very high on their own supply of dominion. Do you want to know what is irritating hypersubjects today? The fact that hyperobjects are whispering in their ears, whispering that this being and time that they have fashioned in their image and for their own convenience is dying. The voices in their heads say that there is no time for hypersubjects any more. It is *hyposubjectivity*, rather than *hypersubjectivity*, that is becoming the companion of the hyperobjective era....

Although *hyposubjectivity* sounds a bit like an object condition of being forced to endure and suffer the effects of viscous forces like climate change and capital, we wonder whether that sense of weakness and insignificance, that lack of knowledge and agency is actually what needs embracing.

Hyperobject? Mikkel Krause Frantzen and Jens Bjerling *Ecology, Capitalism and Waste: from hyperobject to hyperobject Theory*, *Culture*

The article develops the notion of the 'hyperobject' – coined by Danish poet Theis Ørntoft – into a proper theoretical concept. The term *hyperobject* is a synthesis of Timothy Morton's concept of hyperobjects and Julia Kristeva's theory of *abjection*, and in the article we argue that the concept of the hyperobject entails a necessary critique of and correction to Morton's ecological thought, as well as various other versions of speculative realism, new materialism and object-oriented ontology.

Coherence? The implications are discussed further with respect to the *Coherence in the surreal as a kaleidoscope of imagery forming a hyperobject* (2022) from the following perspectives:

- Hyperobject traces and indications: a subtle cognitive ecosystem?
- Hyperobjective entanglement: sacredness, wickedness and the witch meme
- Living as a hyperprocess in a hyperobject as a hyposubject?

Capitalism as answer with dollar symbolizing the unrecognized question?

If capitalism is the "answer" -- as promoted by the Great Reset -- what is the "question"? **A potentially forgotten question?** But: "The" answer, rather than "an" answer"? "The" question, rather than "a" question?

S-Curves and project management: Although the argument has presented the design of the dollar as a template for an appropriately systemic mind map or symbol, the task of populating its features has been left to a later date. One indication of possibilities is through consideration of the *S Curve in art* which serves a wide variety of compositional purposes. However, of potentially greater relevance to this argument is its recognition as the *sigmoid curve* of mathematics.

Many natural processes, including those of complex system learning curves, exhibit a progression from small beginnings that accelerates and approaches a climax over time. When a detailed description is lacking, a sigmoid curve is often used, namely one produced by a mathematical function having an "S" shape of which a common form is the *logistic function*. The S-curve initiates with exponential growth, followed by slowing of growth as saturation occurs, and completion of growth at maturity.

S-curve theory is used in project management as a tool to help learners and team members grasp the importance of monitoring the growth, progress and performance of ongoing projects. As such it makes it possible to represent the utilization of resources over the proposed time of the project (Ciel S. Cantoria, *Understanding the S-Curve Theory for Project Management Monitoring*, *Bright Hub*, 24 June 2011). At first, as funds are put into development, progress is frustratingly slow. Then, as research uncovers the key pieces of information necessary to make advances, the pace surges. Finally, progress slows down again, and each successive innovation requires a greater outlay of resources:

- Jacqueline Brass, et al: *Shaping individual development along the S-curve* (*McKinsey and Company*, 15 February 2019)
- Donna Weidinger: *Guide to S-Curves: Definition, Stages and Inflection Points* (*Indeed*, 11 March 2023)
- Buckley Barlow: *The S Curve of Business: the key levers to sustaining momentum for your brand* (*Rocket Source*)
- Fahad Usmani: *S-Curve in Project Management: Examples with Definitions* (*PMP*, 5 October 2022)
- Shohreh Ghorbani: *The Philosophy Behind S-Curves* (*Project Control Academy*)
- Laurens Speelman and Yuki Numata: *Harnessing the Power of S-Curves: how S-Curves work and what we can do to accelerate them* (*RMI*, 2022)

As indicated by the latter, the shape of the S-curve is a result of system feedbacks such as learning curves, economies of scale, technological reinforcement, and social diffusion. The process of an S-curve is complex and context specific, and some innovations are more likely to scale than others, but all transitions follow the same pattern of shifting dynamics:

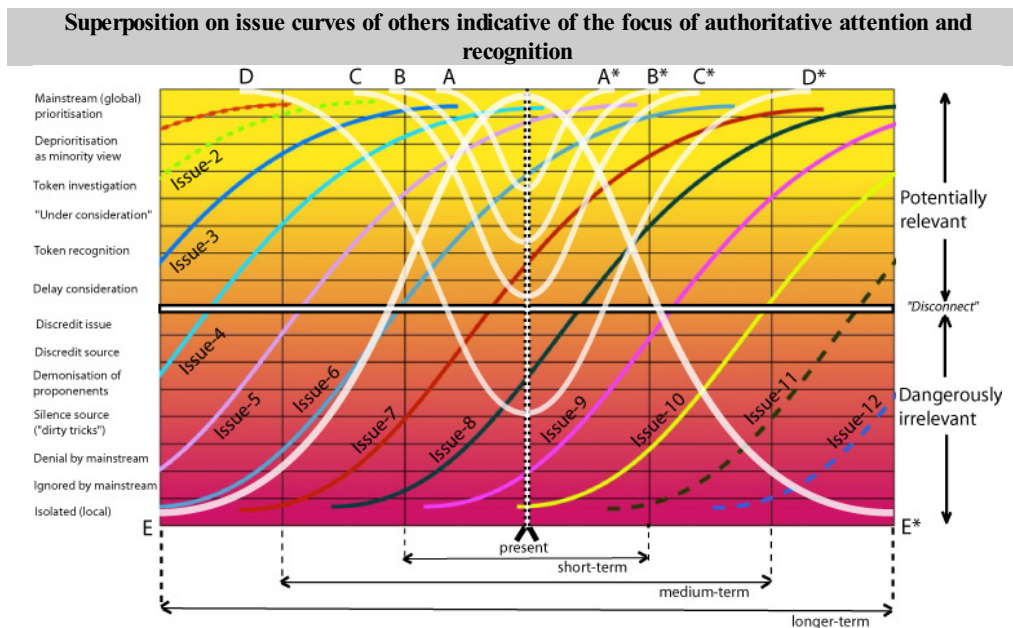
- *Phase 1:* Visionaries recognize a problem or opportunity and conceptualize a better way to do things.
- *Phase 2:* Innovators move the concept from the laboratory, models, and sketches to working prototypes or pilots.
- *Phase 3:* Early adopters form niche markets, connecting supply and demand. Performance increases and costs decline but the innovation remains at a premium and not widely available.
- *Phase 4:* The innovation reaches mass market as it outperforms incumbents in costs and performance. This is the steep part of the S-curve.
- *Phase 5:* Growth slows as the innovation reaches market saturation. The innovation may be transferred to new markets or serve as the basis for further innovations.

Of interest is the possibility that the inflection points in the S-curve are somehow related to forms of failure, if only as may be recognized in learning -- whether individual or collective (*Variety of System Failures Engendered by Negligent Distinctions*, 2016)

S-curves and issue recognition: An adaptation of the S-curve is discussed separately (*Framework for exploring attentiveness to new information*, 2009). There they are indicative of a succession of emergent issues -- the left-most (below) necessarily emerging first -- suggestive of how confirmation of each is first only accepted in isolated locations, progressing to the emergence of each over time into mainstream (global) recognition. Their different colours are only used below better to distinguish them -- although clearly they could be appropriately colour-coded.

Their succession might include; human rights, poverty, development, environment, energy, climate change, terrorism, etc. -- "waves" of emergent crises ("parading past the central stand of public attention"). The time of their mainstream recognition might be marked by their institutionalization -- as in the UN Specialized Agencies or its 17 Sustainable Development Goals -- in contrast with any earlier recognition by isolated civil society bodies or individuals associated with the much lower (and less-representative) rows. (A quantitative measure of

the emergence of an issue might be a count of the words devoted to it in the media.)



A theory regarding the universal nature of S-curves has been developed by Adrian Bejan and Sylvie Lorente (*The constructal law origin of the logistics S curve*. *Journal of Applied Physics*, 2011; 110: 024901). This constructal law is based on the principle that flow systems evolve their designs over time to facilitate flow access, reducing and distributing friction or other forms of resistance. As summarized (*Seeing the S-curve in everything*, *ScienceDaily*, 20 July 2011):

From economic trends, population growth, the spread of cancer, or the adoption of new technology, certain patterns inevitably seem to emerge. A new technology, for example, begins with slow acceptance, followed by explosive growth, only to level off before "hitting the wall." When plotted on graph, this pattern of growth takes the shape of an "S." While this S-curve has long been recognized by economists and scientists, a Duke University professor believes that a theory he developed explains the reason for the prevalence of this particular pattern, and thus provides a scientific basis for its appearance throughout nature and the human-made world.

An argument for such use of the S-curve can be derived by comparison with that for the **diffusion of innovation** developed by **Everett M. Rogers** (*Diffusion of Innovations*, 1962). The S-curves here might be understood as a variant. Rogers proposes that adopters of any new innovation or idea can be categorized as innovators (2.5%), early adopters (13.5%), early majority (34%), late majority (34%) and laggards (16%), based on the mathematically-based Bell curve. Innovation adoption is then a process that occurs over time through five stages: *Knowledge, Persuasion, Decision, Implementation and Confirmation*.

However in the figure above, the "innovations" are unforeseen problematic issues -- even "wicked problems" or crises -- to whose recognition various vested interests and authorities are initially resistant, even vigorously so. Relevant insights may also be gained from the **Technology Acceptance Model** (TAM) in information systems theory indicating how users come to accept and use a technology. From that perspective, the image might be understood as an effort towards modelling the cognitive process of progressive relaxation of "issue rejection".

The issues might also be understood as "strategies" rather than as "problems", then highlighting the progressive recognition of their viability, especially that of "alternatives". There is the possibility that the point of inflection in the S-curve at which it rises more rapidly to mainstream acceptance is triggered by globally mediated tragedy -- as with the homelessness and joblessness resulting from the financial crisis of 2008, or the deaths from earthquakes -- effectively a form of "option legitimization" by a modern form of "human sacrifice".

Capitalism as a global project? To the extent that capitalism (or any other major global collective initiative) can be understood as a strategic "project", its development merits consideration in terms of an S-curve for civilization as a whole. Related discussion includes:

- Tony Fish: *Revising the S-Curve in an age of emergence* (*OpenGovernance*, 9 December 2020)
- Dick Smythe: *The Universal 'S curve'* (*Productivity Knowhow*, 3 August 2022)
- Nan Li, et al: *The S-Curve: Understanding the Dynamics of Worldwide Financial Liberalization* (*FRB Atlanta Working Paper*, 2021-19)
- Bill Synnot: *Even Countries Follow A Version Of The S-Curve, Eg China*
- Giorgos Galanis, et al: *Systemic Cycles of Accumulation and Chaos in the World Capitalist System: A Missing Link* (University of Massachusetts Amherst, 2022)

As discussed separately, there are seemingly no references to "cognitive curvature" as such -- other than one insightful Twitter comment to the effect that "cognitive curvature produced by the manipulation of the stories on the brain, opens the narrative space hosting the

stories themselves" (*Curvature: experiential and cognitive*, 2011). [Learning curves](#) and the [learning curve effect](#) offer valuable insights into the experience and efficiency of learning -- but primarily in terms of external observation rather than from the actual subjective experience of the learner.

- Philip Elmer-DeWitt: *The tornado funnel of civilizations, the S-curve of technologies* (5 March 2019)
- Sohel Ahmed: *The Curve of Civilization* (1 May 2019)
- Anders Sandberg: *The Sigmoid Theory of History*
- Matthew Melko: *Stephen Blaha. The Rhythms of History: A Universal Theory of Civilization* (*Comparative Civilizations Review*, 49, 2003, 14).
- Luke Mikic: *The 300 Year Civilizational Miracle: creating an Industrial Revolution 2.0 for the Digital Age* (4 April 2023)
- Lisa B E Shields, et al: *The S-curve discontinuity theory predicts the path towards a "well" society and increased longevity* (*Medical Hypotheses*, 121. 2018)

For [Charles Handy](#) the sigmoid curve is a symbol for growth and change (*The Age of Paradox*, 1995, also titled *The Empty Raincoat: making sense of the future*, 1995). As later reviewed by the Open University (*The Sigmoid Curve*), it is a standard life cycle curve -- of civilizations, as well as of companies, plants and animals. Handy argues that the key to growth and innovation is to make a jump from one sigmoid curve to another, right at the point when everything within the organization in question feels good and comfortable.



3D Dollar sign as a sigmoid curve -- but with its inverse?

In exploring the dollar sign as a comprehensive systemic diagram of capitalism, it could be tentatively argued -- if only as a mnemonic aid -- that **the sigmoid curve is combined with what is effectively its inverse in the Mobius strip configuration**. The inverse (or reverse) logistic S-curve would then correspond to a de-growth process, potentially a feature of the collapsing phases of a collective initiative -- a corporation, the capitalist project, or a civilization. Despite extensive discussion of the "rise and fall of civilizations" by historians, there is far less reference to the inverse process as an S-curve -- as might be expected from its "unpopularity":

- [Inverse Logistic Function / Reverse Sigmoid Function](#) (*Stackoverflow*, 2013)
- [Inverse of sigmoid equation](#) (*Mathematics Stack Exchange*, 2020)
- Blaine Brownell: [Rewriting the Malthusian Catastrophe Through Architecture](#) (*Architecture Magazine*, 10 October 2019)
- S. Vakulenko, et al: [Rise of nations: Why do empires expand and fall?](#) (*Chaos*, 30, 2020, 093108)
- Nathan Brixius: [The Logit and Sigmoid Functions](#) (4 June 2016)

Dollar as sigmoid curve in 2D: With the conventional dollar sign as an "S", it is this which could be considered indicative of the growth phases of the S-curve. Absent from that 2D representation (although a feature of the 3D configuration as a Mobius strip) is a form resembling a reversal of the "S" -- as "2" (*Reversed S, Wikipedia*). This appears in numerous alphabets, including some proposed extensions of the Latin alphabet. Depending on the context in which the letter is used, it is typically based either on the numeral 2 or the Latin letter "S". A charge strongly resembling a "2" appears in one civic [coat of arms](#). Reversed S is very often used in languages using the Latin alphabet as a substitute for S, to depict a young child's handwriting.

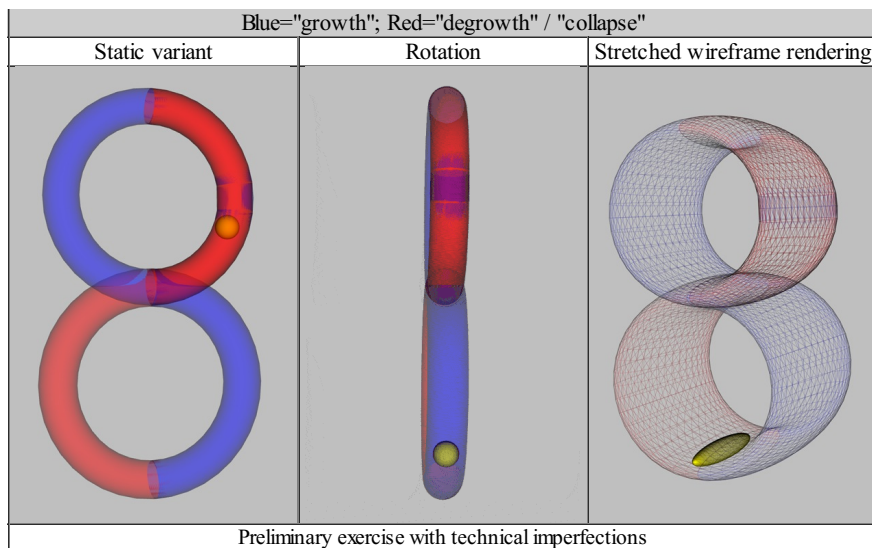
Ironically the superimposition of the "S" and its inverse (as in the animations below) renders visually apparent the "8" which featured in the origins of the dollar in relation to the [Spanish dollar](#), otherwise known as "pieces of eight". Widely used in Europe, the Americas, and the Far East, it became the first world currency by the 16th century.

Dollar in relation to "pieces of eight"? (animations)	
Without bars	With bars
	

In that light it is then of interest to consider the placement of the double lines which are vertical in the conventional dollar sign. It is possible that in terms of any systemic mapping in 3D that these should link diagonally from the start of the "S" to its end. The absence of such linkage in the conventional 2D sign may be indicative of a fundamental disconnect undermining the viability of capitalism as mapped by the two curves. More problematic is the inherent linearity of those bars, when a degree of curvature would be more appropriate -- implying a problematic linear "fix". From an accounting perspective, this frames the use of geometry to embody developmental integrity (*Spherical Accounting*, 2014).

Dollar as sigmoid curve in 3D: Representing the S-curve as a tube, the "growth" portion is represented in blue below, joined to a (subsequent) "de-growth" phase in red. A small sphere traces the path between the S curve and its inverse. Other perspectives are offered by rotation of the whole (below centre), or by distorting the form. At a much higher rate of rotation the perceived pattern is necessarily one of an upper and lower sphere.

Dollar, using sigmoid curve and its inverse



There is an extensive literature on 3D variants of the sigmoid curve, including those featuring in the human body -- notably the sigmoid colon and the sigmoid sinus in the brain. Less evident are forms resulting from the curve with its inverse.

Dollar sign as a speculative question mark? If capitalism is indeed considered to be "the" answer to the challenges of civilization, the dollar sign could be provocatively indicative of "the" question to which capitalism is that answer. Again, a potentially forgotten question?

As the basis of one approach, capitalism could be recognized as a "conference" -- a "conference of transactions". So framed an earlier speculative discussion on a *World Futures Conference as Catastrophic Question* (2013) offers themes of potential relevance:

- | | |
|--|---|
| <ul style="list-style-type: none"> Conferencing: Outside Inside or Inside-Outside? Fantastic realities of experiential space-time Conferencing of a higher order: a Quest or an Inquest? Deconstructing conference communication processes to elicit meta-discourse Conference communication specifics meriting attention | <ul style="list-style-type: none"> Questioning as cognitive portal to the future In quest of the most deadly question Enabling morphogenesis and transformation through catastrophic questioning Markings: ¿ Question ∞ Answer ?! Conferencing as putting identity to the question |
|--|---|

Of particular relevance is the notion of a "deadly question" variously evoked as one which could explode a bubble of complacency (*Pricking the Bubble of Global Complacent Complicity*, 2017). As discussed with respect to a conference, **what is the "deadly question" which would enable human civilization to "fly"?** To what does civilization have to "die" to enable that modality? The potentially radical nature of the question is suggested by commentary on *Suzuki Shosan* by *Winston L. King* (*Death Was His Koan: the samurai Zen of Suzuki Shosan*, 1986).

The discussion included the following experimental animations which suggest possibilities of their elaboration in relation to the dollar, as explored on the right using the [inverted question mark](#) which features in the Spanish language. Of some relevance are the distinct forms of the question mark featured in the variety of fonts.

Tentative design experiments in relation to dollar sign				
Alternation between "question" and "answer" (by "rotation through another dimension")		Pairing question marks to highlight cognitive implications of mirroring and potential "entanglement" of "points"	Combination of possible elements of a question-based meta-narrative (tentative exercise)	Using question mark and its inverted variant (with contrasting fonts)
? question (implying a potential answer)				
! answer (implying a potential question)				

Embodiment of curves and a broken cycle? Whether as a question mark or a dollar sign, both offer a curious indication of a broken cycle. The possibility of its completion is suggested by pairing the dollar with its inversion (as the Möbius strip) or by pairing the question mark with its inversion. When presented in 3D these forms suggest the possibility of being embodied cognitively or worn in some manner.

It is therefore interesting to consider the hole defined by an "O" in 2D, and potential implications of its relation to a spherical form, as suggested by the argument of *Ilan Kapoor* (*Psychoanalysis and the Global*, University of Nebraska Press, 2018). How is a 3D globe to be understood from the perspective of a 2D hole, as explored separately (*Re-membering the Globe from a Flatland Perspective*, 2020)?

For Kapoor:

This book is about the *hole* at the heart of the gLObal: it deploys psychoanalysis to expose the unconscious desires, excesses, and antagonisms that accompany the world of economic flows, cultural circulation, and sociopolitical change. In contrast to the mainstream discourse of globalization, which most often assumes unencumbered and smooth movement across borders, the point here is to uncover what Jacques Lacan calls "the Real" of the gLObal -- its rifts, gaps, exceptions, and contradictions.

One approach is through a speculative correlation of theatre, theory, theorem, theology, and theosophy (*The-O Ring and The Bull Ring as Spectacular Archetypes*, 2014). That discussion highlighted the curious nature of "holes":

As a challenge in their own right for ontology and epistemology, bounding "nothingness" by "holes", invites richer insight (Roberto Casati and Achille C. Varzi, *Holes and Other Superficialities*, 1994; M. Bertamini and C. J. Croucher, *The Shape of Holes, Cognition*, 2003). As a metaphor, what then might a wormhole offer as an incomprehensible "shortcut" through communication space, in the light of the forms of (in)comprehension by which this is characterized -- and the probability that the nature of that shortcut would necessarily be incomprehensible within the framework of conventional experience? Holes are at the borderline of metaphysics, everyday geometry, and the theory of perception (as summarized in the [entry on holes](#) in the *Stanford Encyclopedia of Philosophy*). The confusing associations between hole, whole and holy follow from this -- further confounded by the unfathomable implications of budgetary holes. (*Reframing a strategic attractor as a vortex involving a "cognitive twist"*, 2014).

Is there a form of connectivity that is missing from the coherence which the "theos" variously purport to encompass -- effectively a missing link, in the light of the argument of Terrence Deacon (*What's Missing from Theories of Information?* 2010; *Incomplete Nature: how mind emerged from matter*, 2011)?

References

Stafford Beer:

- Beyond Dispute: The Invention of Team Syntegrity. Wiley, 1994 [\[summary\]](#)
- Platform for Change. Wiley, 1995 [\[summary\]](#)

A. G. E. Blake. The Intelligent Enneagram. Shambhala, 1996

John Fornäs. Reading the Euro: Money as a Medium of Transnational Identification. Linköping University, 2007 [\[text\]](#)

Michalle Gal. Visual Metaphors and Aesthetics. Bloomsbury Publishing, 2022

Charles Handy:

- The Empty Raincoat: making sense of the future. Arrow Books, 1995
- The Age of Paradox. Harvard Business Review Press, 1995

David Harvey. Enigma of Capital: and the crises of capitalism. Verso, 2010

Albinko Hasic. The American Dollar Bill Looks the Way It Does for a Reason. *Time*, 31 August 2018 [\[text\]](#)

Thomas Homer-Dixon:

- The Ingenuity Gap. New York: Knopf. 2000
- The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization. Knopf. 2006.

W. T. Jones:

- A History of Western Philosophy. Wadsworth, 4 vols, 1996
- The Sciences and the Humanities; conflict and reconciliation. University of California Press, 1965
- The Romantic Syndrome: toward a new method in cultural anthropology and the history of ideas. Martinus Nijhoff, 1961 [\[summary\]](#)

C. J. Jung. Psychology of Kundalini Yoga. Princeton University Press, 1999

Ilan Kapoor (Ed.). Psychoanalysis and the GIObal. University of Nebraska Press, 2018 [\[contents\]](#)

Julia Kristeva. Powers of Horror: an essay on abjection. Columbia University Press, 1982

Clara E. Mattei. The Capital Order: how economists invented austerity and paved the way to Fascism. University of Chicago Press, 2023

Perry Mehrling. Money and Empire: Charles P. Kindleberger and the Dollar System. Cambridge University Press, 2022

Jason W. Moore:

- Capitalism in the Web of Life: ecology and the accumulation of capital. Verso, 2015
- Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism. PM Press, 2016.

Timothy Morton:

- Ecology without Nature. Rethinking Environmental Aesthetics. Harvard University Press, 2007
- The Ecological Thought. Harvard University Press, 2010
- Hyperobjects: Philosophy and Ecology after the End of the World. University of Minnesota Press, 2013 [[text](#)]

Marius Nijenhuis. The Dark Underbelly of Capitalism: Exploring the Capitalism-War Connection. *Krisis*, 41, 2021, 2) [[text](#)]

David Ovason. The Secret Symbols of the Dollar Bill. Harper Collins, 2004

Karthik Ramanna. Thin Political Markets: The Soft Underbelly of Capitalism. *California Management Review*, 57, 2015, 2

Steven M. Rosen:

- Science, Paradox, and the Moebius Principle. State University of New York Press, 1994 [[text](#)]
- Dimensions of Apeiron: a topological phenomenology of space, time and individuation. Rodopi, 2004 [[summary](#)]

Bernie Sanders. It's Ok to Be Angry about Capitalism. Crown Publishing, 2023

Michael Sonenscher. Capitalism: the story behind the word. Princeton University Press, 2022 [[summary](#)]

Imogen Tyler. Revolting Subjects: Social Abjection and Resistance in Neoliberal Britain. Zed Books, 2013



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](#).

For further updates on this site, [subscribe here](#)