



laetus in praesens

Alternative view of segmented documents via Kairos

20th October 2011 | Draft

Checklist of 12-fold Principles, Plans, Symbols and Concepts

Web resources

-- / --

Annex to *Eliciting a 12-fold Pattern of Generic Operational Insights: Recognition of memory constraints on collective strategic comprehension* (2011)

Summary

Symbolic clues: There is a long tradition of 12-fold sets which are variously upheld as meaningful and logically consistent within different contexts -- many to be understood as archetypes. Unlike Young's insights, many of these indicate distinctions, if they do, by forms of allusion which are not especially helpful in providing a sense of the "functions" in question and how they relate as complements to other "functions". The allusions may take the form of accounts of mythical or legendary interactions. **The following examples are included as an illustration of a variety of understandings of fundamental significance and the nature of the articulation considered possible and meaningful -- within human cognitive capacity and preferences :**

- **12-starred Flag of Europe**, with no distinction made between them -- the totality being a symbol of completeness and perfection. Critically, at a time of great crisis for the "European project", there is no sense of what any distinctions might imply for the integrity of Europe.
- **Cultural and religious "archetypes":**
 - Deities (notably distinguished as male or female):
 - **12 Olympian deities** (Greece): Zeus, Hera, Poseidon, Demeter, Athena, Dionysus, Apollo, Artemis, Ares, Aphrodite, Hephaestus and Hermes.
 - **12 Dii Consentes** (Rome): Juno, Vesta, Minerva, Ceres, Diana, Venus, Mars, Mercury, Jupiter, Neptune, Vulcan, Apollo
 - **12 Apostles**: Peter, Andrew, James the Greater, James the Lesser, John, Philip, Bartholomew, Matthew, Thomas, Thaddeus, Simon, and Judas Iscariot (or, subsequently, Matthias)
 - **12 Imams in Shi'a Islam**: divinely ordained leaders which are a focus of the mystical belief of the **Twelvers**
 - **12 Knights of the Round Table**: Lancelot du Lac, Bors de Ganis, Gawaine, Bedivere, Geraint, Kay, Gareth, Lamorak, Galahad, Percivale, Tristan, Gaheris (*George Trevelyan, Twelve Seats At The Round Table, 1976*)
 - **12 Zodiacal signs** according to different traditions (**Chinese, Indian**, Western)
 - **12 Labours of Hercules**
 - **12 Tribes of Israel**, notably as speculatively discussed separately (*Generic Reframing of the 12 Tribes of "Israel"*, 2009)
 - 12 Jyotirlingas (epitome of God Shiva) in Hindu Shaivism
 - 12 sons of **Odin**, as the principal **Norse** god
 - 12 sons of the biblical **Jacob**, who were the progenitors of the 12 Tribes of Israel
- **Religious concepts:**
 - **Christian angelic hierarchy**:
 - **12 Orders of Angels**: Clustered into four "Choirs" within each of which there are three Angelic Orders. Each order is held to present an awareness or gift to human kind.
 - **12 Angels** (of *Revelation 21:12*): [*The Holy City, Jerusalem...*] had a great, high wall with twelve gates, and with twelve angels at the gates. On the gates were written the names of the twelve tribes of Israel.
 - **12 conditions of dependent arising of enlightenment**: suffering (*dukkha*); faith (*saddha*); joy (*pamojja, pamujja*); rapture (*piti*); tranquillity (*passaddhi*); happiness (*sukha*); concentration (*samadhi*); knowledge and vision of things as they are (*yathabhuta-ñana-dassana*); disenchantment with worldly life (*nibbida*); dispassion (*viraga*); freedom, release, emancipation (*vimutti / nibbana*); knowledge of destruction of the cankers (*asava-khaye-ñana*).
 - **12-fold conditioned arising** ("dependent origination", "dependent arising", "conditioned genesis", "dependent co-arising", and "interdependent arising"): ignorance; karmic formation (actions, impulses); consciousness; name and form; six

involvements (senses); contact (with six sense objects); feeling (sensation); craving; grasping; existence; birth; old age and death. The Buddha applied this general truth of causal interdependence to the problem of human suffering and formulated a twelve part chain showing the causal relations between the psychophysical phenomena that sustain dukkha (dissatisfaction) in worldly experience (*Tibetan Buddhism*, 1984)

- [12 Elementals of the *Sepher Yetzirah*](#): Heh (speech / Aries); Vav (thought / Taurus); Zayin (motion / Gemini); Chet (sight / Cancer); Tet (hearing / Leo); Yud (action / Virgo); Lamed (coition / Libra); Nun (smell / Scorpio); Samekh (sleep / Sagittarius); Eyin (anger / Capricorn); Tzadi (taste / Aquarius); Kuf (laughter / Pisces) [SY 5:1]
 - [12 Principles of the Baha'i Faith](#)
 - [12 Principles of Anabaptism](#)
 - [12 Principles of Buddhism](#) by Christmas Humphreys
 - [12-fold Path of Amritayana Buddhism](#)
 - [12 Principles and Values behind a Krishna Conscious Family Life](#)
 - 12 Ceremonial objects of Tibetan Buddhism, including: prayer wheel, ritual scepter and bell (2), crystal rosary, offering mandala, offering bowl, pellet drum, ritual dagger, ritual crown, bone armlet, bone rosary
 - [The Twelvelfold Declaration of a Modern Pagan](#) by Robin Artisson
- **Mathematics:**
 - [12-fold way of combinatorics](#): a systematic classification of 12 related enumerative problems concerning two finite sets, which include the classical problems of counting permutations, combinations, multisets, and partitions either of a set or of a number.
 - [12 Jacobian elliptic functions](#). Comprehensibly described by [James B. Calvert](#), *Jacobian Elliptic Functions: an introduction to these mysterious functions*. Each of the twelve functions corresponds to an arrow drawn from one corner of a rectangle to another -- with the rectangle understood to be lying on the [complex plane](#).
 - 12 basic mathematical functions: identity function ($f(x) = x$), squaring function (quadratic) [$f(x) = x^2$], cubic function [$f(x) = x^3$], reciprocal function (rational function) [$f(x) = 1/x$], square root function [$f(x) = \sqrt{x}$], exponential function [$f(x) = e^x$], natural logarithm function [$f(x) = \ln x$], sine function [$f(x) = \sin x$], cosine function [$f(x) = \cos x$], absolute value function [$f(x) = \text{abs}(x)$], greatest integer function [$f(x) = \text{int}(x)$], logistic function [$f(x) = 1/(1+e^{-x})$]
 - Three of the twelve functions are even
 - Only two of the twelve functions have points of discontinuity
 - Only three of the twelve functions are bounded (above and below)
 - Nine of the functions have domain set of the real numbers.
 - One of the functions has domain the set of all reals except 0.
 - Two functions have no negative numbers in their domains -- one is defined at zero
 - 12 "complex" archetypal interaction morphologies (in a set of 16) identified by [Rene Thom](#) (*Structural Stability and Morphogenesis: an outline of a general theory of models*, 1975, p. 307): capturing, sending, crossing, "almost", fastening, giving, rejecting, failing, taking, stirring, emitting, cutting.

- **Geometry and symmetry:**

- [12 "paired" Archimedean polyhedra](#) (in addition to the [truncated tetrahedron](#))

2,3,4-fold symmetry

[truncated octahedron](#)
[cuboctahedron \(vector equilibrium\)](#)
[truncated cuboctahedron](#)
[snub cube](#)
(small) [rhombicuboctahedron](#)
[truncated cube](#)

2,3,5-fold symmetry

[truncated icosahedron](#)
[icosidodecahedron](#)
[truncated icosidodecahedron](#)
[snub dodecahedron](#)
(great) [rhombicosidodecahedron](#)
[truncated dodecahedron](#)

- [12-sphere closest packing of spheres](#) around a nuclear sphere. For R. Buckminster Fuller (*Synergetics*):

"With each and every event in Universe -- no matter how frequently recurrent -- there are always 12 unique, equieconomical, omnidirectionally operative, alternate-action options, which 12 occur as four sets of three always interdependent and concurrent actions, reactions, and resultants." (II, 537.06)

"With each and every event in Universe -- no matter how frequently recurrent -- there are always 12 unique, equieconomical, omnidirectionally operative, alternate-action options, which 12 occur as four sets of three always interdependent and concurrent actions, reactions, and resultants." (II, 537.06)

"A vector is one-twelfth of relevant system potential." (I, 521.09)

"Synergetics discovers that whatever is rigidly related to anything else discloses 12 restraints. There are a minimum of 12 restraints in developing anything we might call a rigidly related set of events....The game of Universe is like chess with 92 unique men, each of which has four frequencies available, and it works on 12 degrees of freedom instead of a planar checkerboard." (I, 537.01-03)

"Experience is inherently omnidirectional; ergo, there is not just one "other". There are always at least twelve "others". The connection between the six degrees of freedom and omnidirectionality is, of course, the vector equilibrium. Pulsation in the vector equilibrium is the nearest thing we will ever know to eternity and god: the

zerophase of conceptual integrity inherent in the positive and negative asymmetries that propagate the problems of consciousness evolution. Our inherently limited perceptivity requires these definitions of the asymmetric emphasis of experience." (I, 502.25)

- 12-fold diffraction symmetry of [quasicrystals](#) (whose discovery was cause for the Nobel Prize in chemistry in 2011)

Principles of "in-formation" structured as a 12-fold set: In addition to the above patterns, it is useful to note the following in relation to learning and behaviour change -- perhaps to be understood as "in-formation". They raise the question of the relative probability of "principles" being articulated in sets of any given size and why a set of this size is considered coherent, appropriate and viable -- why it "works":

- **12-step program:** a set of guiding principles outlining a course of action for recovery -- elaborated for a variety of forms of from addiction, compulsion, or other behavioral problems.
- 12 Mathematical Concepts (Dani Novak and Anthony di Renzo, *Twelve Mathematical Concepts: A Study Guide for the Ithaca College Math Placement Exam*)
- 12 Whys of Chinese Communist terminology articulated by [Hua Guofeng](#) (1976) in relation to his condemnation of the [Gang of Four](#)
- 12 Principles of survival (John Medina, *Brain Rules: 12 Principles for Surviving and Thriving at Work, Home, and School*, 2008)
- 12 Principles of Green Chemistry (Paul Anastas and John Warner, *Green Chemistry: Theory and Practice*, 1998)
- 12 Principles of Green Engineering (P. T. Anastas and J. B. Zimmerman, *Design through the Twelve Principles of Green Engineering*, Env. Sci. and Tech., 37, 5, 94A-101A, 2003).
- 12 Principles of Knowledge Management by Verna Allee (2001)
- 12 Knowledge Building Principles by M. Scardamalia (Collective cognitive responsibility for the advancement of knowledge. In B. Smith (Ed.), *Liberal education in a knowledge society*, Open Court, 2002, pp. 67-98)
- 12 Principles for Managing Change by Lynda Rogerson
- 12 Principles for Supporting Healthy Community by Meg Wheatley
- 12 Basic Principles of Animation
- 12 Principles of Design by P. Allen Smith
- 12 Principles of Personal Finance by Jon Wittwer
- 12 Principles of OLGA / OLG-Anon for Atheists and Agnostics by On-Line Gamers Anonymous
- 12 Principles of Good Assessment and Feedback by University of Strathclyde (2008)
- 12 Principles of Permaculture by David Holmgren (and David Jaber, *Community Alchemy: How to Use 12 Principles of Permaculture to Grow Sustainable Organizations*)
- 12 Principles of Account Management by Sales Effectiveness, Inc
- 12 Principles to Guide Joint Implementation (Center for International Environmental Law, October, 1997)
- 12 Principles of the Wisdom Council (Center for Wise Democracy)
- 12 Principles of Negotiation by Marvin Gottlieb and William J. Healy (1998)
- 12 Principles of Ecopreneuring (2011)
- 12 Principles for Effective Adult Learning (2002)
- 12 Principles of Spiritual Intelligence by Danah Zohar
- 12 Principles of Liberation by Oliver Prygotzki
- 12 Principles of Civilization: Guidelines for Designing Interactive Internet Services by Mongoose Technology, Inc. (2001)
- 12 Principles for a Strong, Fair and Clean Economy by Nicholas Bray RAY (2009)
- 12 Principles of Manufacturing Excellence: A Leader's Guide to Achieving and Sustaining Excellence by Larry E. Fast.
- 12 Principles to Successful Long-Term Investing by R. J. Weiss
- 12 Principles (to Humanizing the Earth): a guide to valid, unitive action from *Humanize the Earth* by Silo (*New Humanist*, 2009)
- 12 Principles of Governance that Power Exceptional Boards (BoardSource, 2005)
- 12 Worst Ideas Organized Religion has Unleashed on the World (*AlterNet*, 30 April 2018)
- 12 Rules for Life: An Antidote to Chaos by Jordan Peterson (2018)
- The Inevitable: Understanding the 12 Technological Forces That Will Shape Our Future by Kevin Kelly (Penguin, 2017)
- The 12 Cognitive Biases that Prevent you from being Rational (*io9*, 1 October 2013)
- Early Warning Signs of IT Project Failure: the dominant dozen (*Information Systems Management*, Fall 2006)
- Prescription for the Future: the twelve transformational practices of highly effective medical organizations (PublicAffairs, 2017)

Strategic plans and programmes

- 12-Point Elevator Pitch Strategy
- 12-Point Program for the Prevention of Torture (Amnesty International)
- 12-Point Proposal for the Occupy Movement: [Be the Change](#) by Andrew Gavin Marshall (16 October 2011)
- 12-Point Program for the Social Enterprise: Social Media Strategy
- 12-Point Comprehensive Approach to Character Education
- 12-Point Plan to Combat Terrorism
- 12-Point Checklist for Disaster Recovery Planning
- 12-Point UN World Peace Plan (1948)
- 12-Point EU Action Plan to support the Millennium Development Goals (2010)
- 12-Point Socialists' Action Plan (Socialist Group in the European Parliament, 2007)

- [12-Point Obesity Action Plan](#) (UK Consumers' Association, 2004)
- [12-Point Campaign Against Domestic Violence](#)
- [12-Point Nuclear Safety Action Plan](#) (IAEA, 2011)
- [12-Point Action Plan: The "Santiago Principles" of the International Working Group of Sovereign Wealth Funds](#) (2008)
- [12-Point Checklist to help leaders put their beliefs into actions](#) (World Safety Declaration)
- [12-Point Action Plan](#) (World Economic Forum, annual East Asia summit, Singapore, 1998)
- [12-Point Plan of Action on Marine Spatial Planning \(MSP\) and bycatch mitigation](#) (2010)
- [12-Point WHO Strategic Action Plan for Pandemic Influenza 2006-2007](#)
- [12-Point HR Action Plan to Assist Companies in Addressing Strategic People Issues during the Crisis and Beyond](#) (European Association for People Management, 2009)
- [12-Point National Reconcilian Plan](#) (Iraq, 2006)
- [12-Fold Way to Venture Capital Funding: a roadmap for technology-based product companies](#)
- [\[12\] Leverage Points: Places to Intervene in a System](#) (Donella Meadows, Academy for Systems Change, 1997; see also [Twelve leverage points](#) and [Visual approach](#))

Given the constraints on working memory capacity (highlighted in the [main paper](#)), it is unlikely that the elements of these 12-fold sets would be appropriately "re-membered" to enable the integrated strategic response for which the set was envisaged. Who has the time or inclination to recall 12 points -- especially leaders? Few, if any, of the sets have their points clustered and interlinked to offer mnemonic clues to facilitate such recall. If they have been systemically conceived, this is typically not apparent from current articulations. Consequently **any vital systemic checks and balances provided by the set elements are liable to be forgotten, if not lost.**

It is probable that most "global strategies" profiled by the [Global Strategies Project](#) are articulated in this way, despite other possibilities (*Structure of Declarations: challenging traditional patterns*, 1992). Of relevance to further research is the memorability and viability of plans based on different numbers of points, for example:

- [5-Point Peace Plan for the restoration of peace and human rights in Tibet](#) (1987)
- [6-Point Peace Plan for Georgia](#) (2008)
- [7-Point Peace Plan approved by the G-8 for Kosovo](#) (1999)
- [8-Point Israeli-Arab Peace Plan](#) presented by Saudi Crown Prince Fahd (1981)
- [8-Point Peace Plan for Vietnam](#) presented by Richard Nixon (1969)
- [9-Point Peace Plan presented to the UN General Assembly](#) by Foreign Minister Eban (1968)
- [10-Point Peace Plan of the Baptist World Alliance](#) (2011)
- [10-Point Peace Plan for Northern Ireland](#) (2003)
- [13-Point Peace Plan to Elininate Future Wars](#) by Frank E. Vanderhoof
- [14-Point Peace Plan presented by Woodrow Wilson](#) (1918)
- [15-Point Peace Plan presented by major insurgent factions to Afghan government](#) (2010)
- [40-Point Peace Plan for Sri Lanka](#) (2002)



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

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