

Union of Intelligible Associations

Keystones vs Keynotes?

Anthony Judge
Union of International Associations

UIA Prime data sets

| International | Profiles | Links (web) |
|-----------------|----------------|----------------|
| Organizations | 59,430 | 839,351 |
| Problems | 56,543 | 276,657 |
| Strategies | 42,031 | 198,217 |
| Meetings | 213,086 | 222,418 |
| Human values | 3,257 | 119,255 |
| Biography | 21,013 | 36,465 |
| Doc. Refs. | 50,000 | |

Meeting organization self-reflexiveness

- “Islands” of knowledge in a “sea” of.... doubt?
- How to “participate” effectively?
- A meeting as exemplifying:
 - best understanding of knowledge society?
 - best metaphor of the challenges that society faces?
- Cognitive dependence on:
 - Linear text, 2-d matrix, 3-d cubic structures
 - Filtration processes, empowering the few
 - Exclusivism: people? issues? particular metaphors
- Failure to optimize use of assembled resources?

“Key” issues?

- Knowledge: answers and/or questions?
- Knowledge organization:
 - research problems (of disciplines): “commensurables”
 - policy problems: “incommensurables”
- Comprehension: By whom? To what degree?
- Cognitive “keystones” – “Rosetta stones”?
- Strategic resilience and nimbleness?
- Complexity mapping: comprehensible surface
- Aesthetics: “singable” vs “signable”?

Strategic Resilience

- Security, terrorism:
 - martial arts? Sun Tzu? *Book of 5 Rings*?
 - origami? flower arrangement? metaphor?
- Jitterbug? Transformation?
- Strategic permutations?
- Participative design: *Soda constructor*?
- Engagement of new modes of intelligence
- Marrying “Beauty” and the “Beast”
- Intelligent approach to “positive” vs “negative”

Configuring Disagreement?

- Heavy investments
 - >> agreement – conflict resolution
 - >> disagreement – armaments, security
- We don't like each other's preferences
- We consider them very close to irrelevant?
- We are too polite to say so
- Challenge of the “unsaid”
- Strategic consequences? Resource allocation?

Comprehension and Aesthetics

- Unsaid and “Non-dits”
- George Miller cognitive constraint >>> +/- seven
- *Limits to Growth*: 6 policy problems/issues
- Emergent understanding of organization?
- Ageing population:
 - Playing games with people vs New forms of wisdom?
 - Increasing alienation/boredom of younger generation?
- Eurovision song contest vs Euro constitution?
- Challenge of “strategic halitosis”? Stinking futures?

Higher order questions?

- Knowledge-based society
 - >>> Answer-based society?
 - >>> Question-based society?
 - >>> Wisdom society?
- Facing uncertainty with old questions?
- Bohr/Pauli: Is our theory crazy enough?
- Democracy? Security? Resources?

The Other “Globalization” ?

- Socio-economic, geo-political challenge?
- Or challenge of:
 - “global” comprehension?
 - “integrative” order?
 - “higher patterns of order”?
 - knowledge globalization?
- “Mise en question” of past patterns?
- Beyond impoverished metaphors?
- Are questions and metaphors patentable?

Pointers

- Francisco Sagasti: delay in understanding
- James Carse: finite vs infinite games
- Magoroh Maruyama: mindscapes
- Susantha Goonatilake: richer metaphors
- Ron Atkin: Q-analysis

Integrative Design Metaphors enabling strategic comprehension of the global brain

Anthony Judge

Union of International Associations
for

World Academy of Art and Science

*Conference theme: The Future of Knowledge:
Evolutionary challenges for the 21st Century
(Zagreb, November 2005)*

Panel theme: Organizing knowledge for human benefit

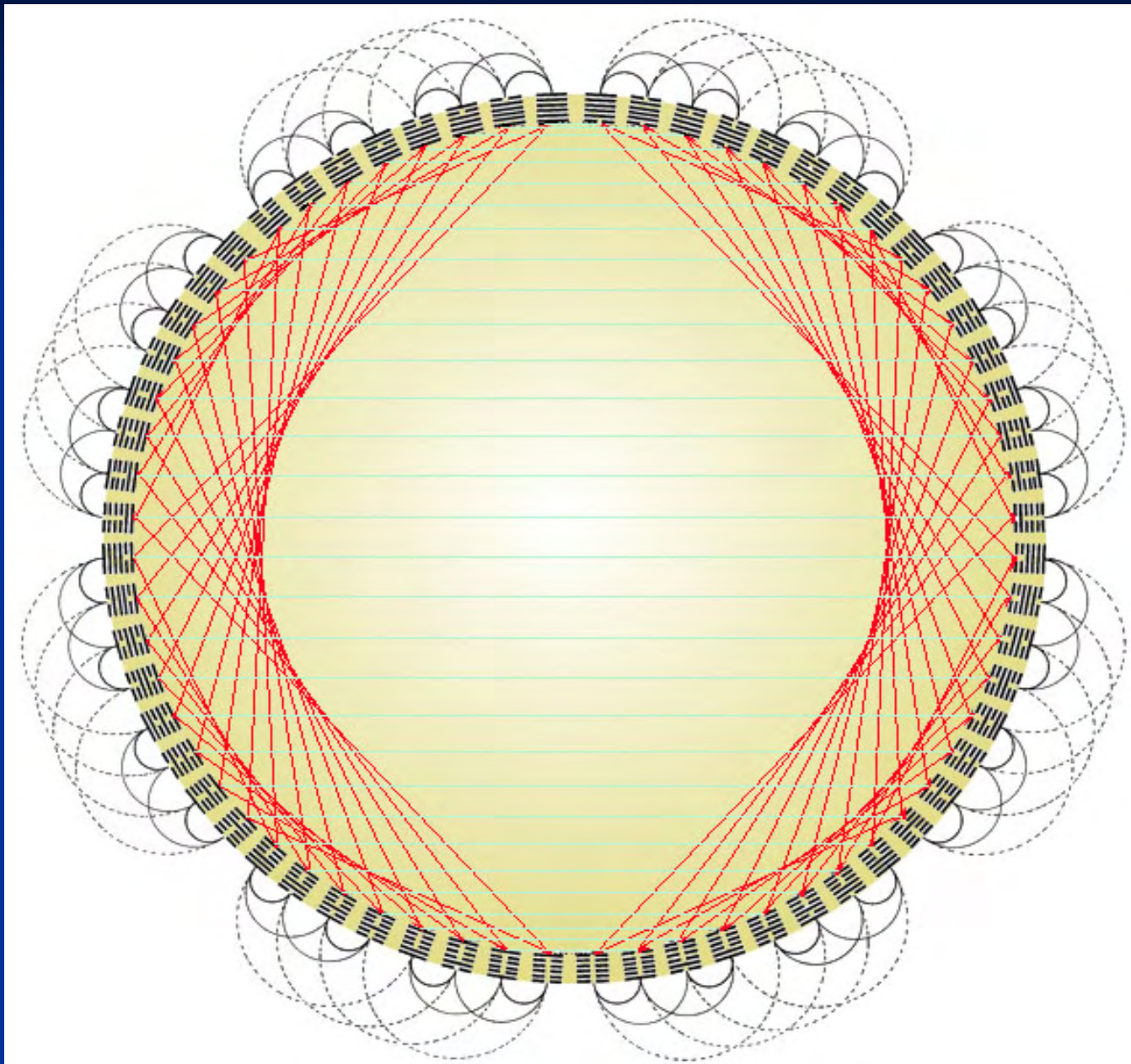
Integrative modes and metaphors: “ways of knowing”

1. Popular symbol systems (astrology, tarot, leys, etc)
2. Lists (selected, prioritized, nested, search hit lists)
3. 2-D Matrix (4-cell, n-cell)
4. Triangular mapping
5. Complementarity diagrams (“correspondences”)
6. Network mapping (self-organizing network maps)
7. Models, simulations, interactive games
8. Circular relationship maps (loop representation)
9. Multi-media, sonification
10. Mapping complexity plane (Mandelbrot set fractal)
11. Spherically configured 3-D structures (polyhedra, etc)
12. Transformable structures , morphable images

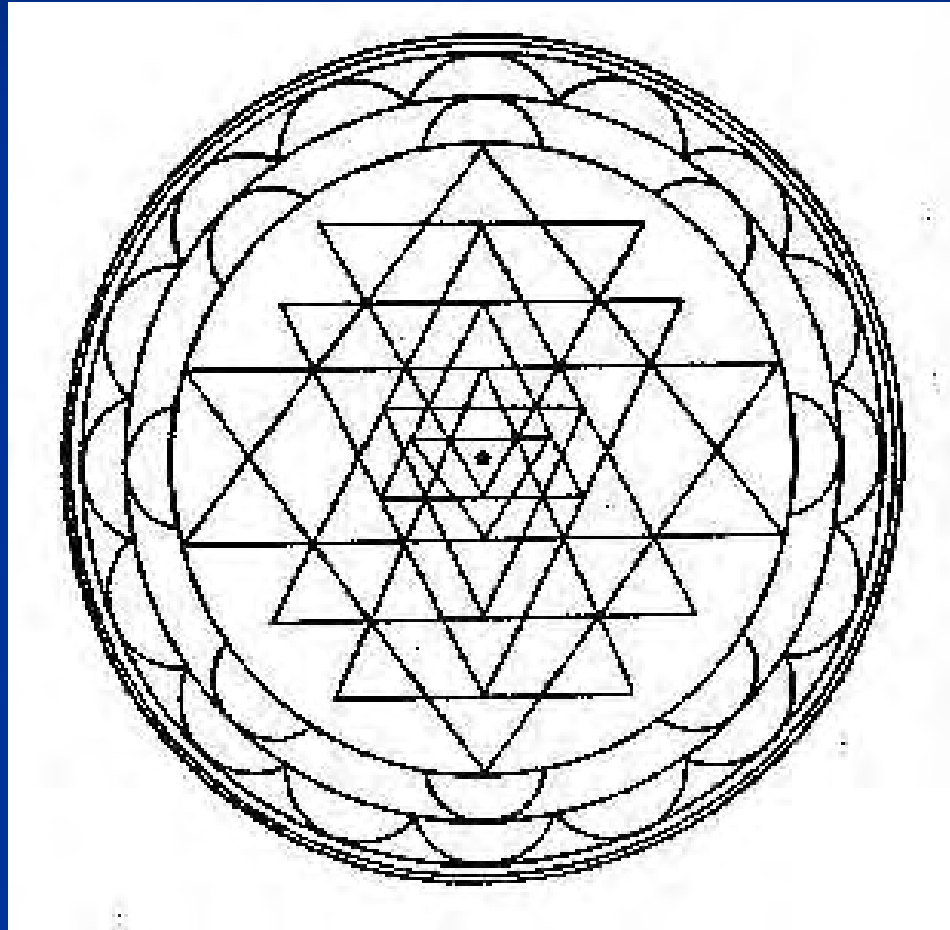
Mode 1: Traditional symbol systems



Insights into policy cycles in Imperial China



Hindu yantra





Mode 2: Lists – unstructured and otherwise

- *Book of Lists*
- Prioritized lists (political “key issues”)
- Nested lists (asystemic)
 - UN/OECD Macrothesaurus
 - Agenda 21
- Hit lists (web search engine results)
- Bulleted lists (as this slide !!!)

Mode 3: 2-D Matrices

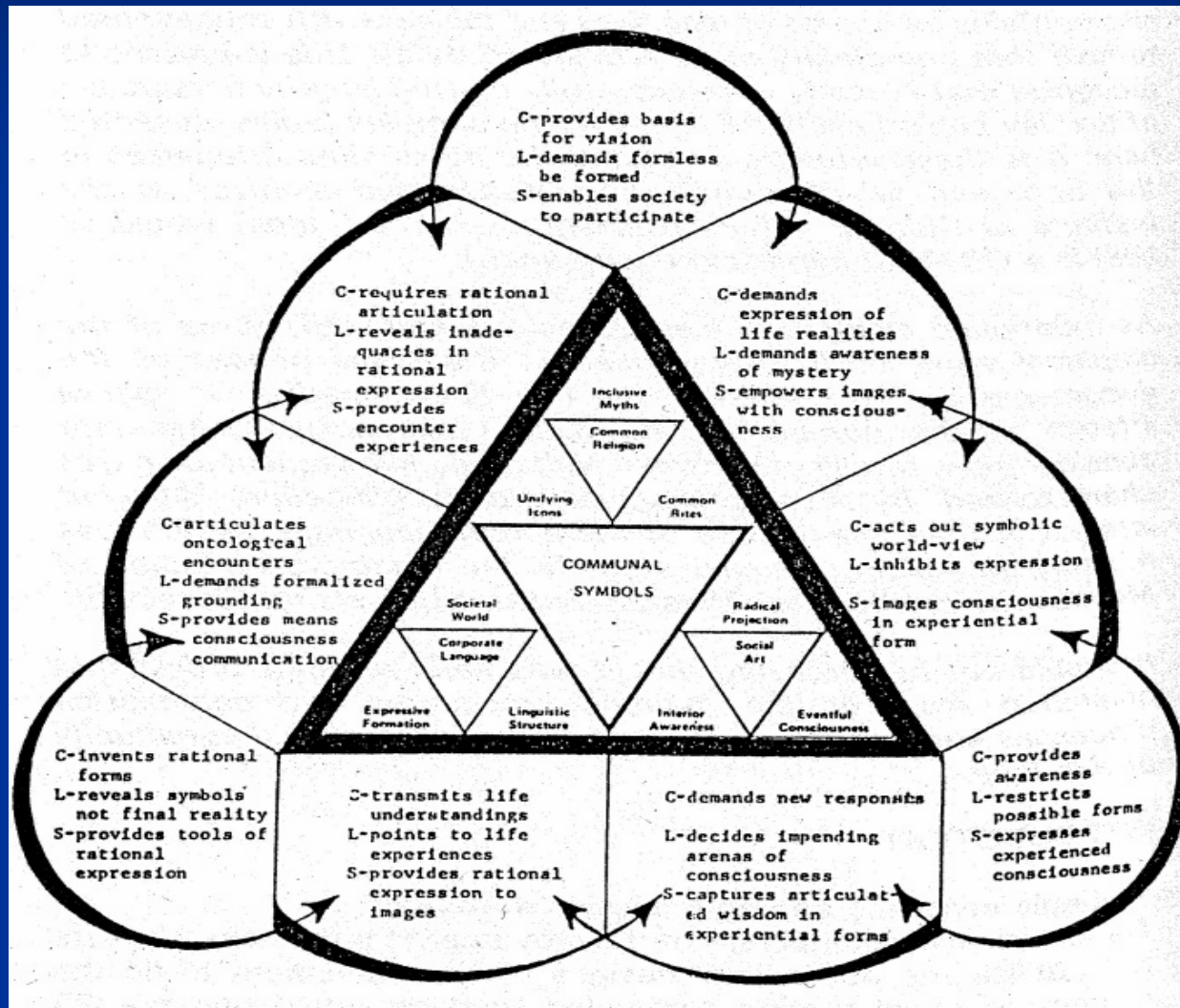
- 4-cell (Wilber quadrants)
- Input-Output diagrams (resources, accounting)
- N-cell (Int. Concept Classification)
- N-cell (UIA Functional classification)

UIA Functional classification matrix

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|-------------------------------|-------------------------------------|---------------------------------------|--------------------------------------|------------------------------------|--------------------------------------|---|-------------------------------|--|----------------------------------|
| 9 | Consciousness 90 | Leadership (Authenticity) 91 | Love (Compassion) 92 | Comprehension 93 | Creative expression 94 | Vigilance (Courage) 95 | Transcendence (Detachment) 96 | Freedom (Liberation) 97 | Perseverance 98 | Oneness (Universality) 99 |
| 8 | Principles 80 | Purpose 81 | Solidarity (Cooperation) 82 | Idealism 83 | Harmony 84 | Integration 85 | Meaning 86 | Sharing 87 | Resourcefulness (Inventiveness) 88 | Equanimity 89 |
| 7 | Innovative change 70 | Logics 71 | Emotional fulfilment 72 | Philosophy 73 | Aesthetics 74 | Security 75 | Morals, ethics 76 | Community 77 | Coevolution 78 | Peace (Justice) 79 |
| 6 | Development 60 | Policy making (Futurology) 61 | 62 | Language 63 | Design 64 | Inter- disciplinarity 65 | Individuation, psycho-analysis 66 | Co-operative 67 | Invention 68 | Conservation 69 |
| 5 | Noosphere 50 | Science 51 | Experiential activities 52 | History 53 | Culture 54 | Strategy, logistics 55 | Theology 56 | Metapolitics 57 | Agroscience 58 | International relations 59 |
| 4 | 40 | Sociology 41 | Management 42 | Informatics, classification 43 | Ekistics (Architecture) 44 | Cybernetics (Systems) 45 | Psychology (Behaviour) 46 | Economics 47 | Technology 48 | Environment 49 |
| 3 | 30 | Research, standards 31 | Health care 32 | Education 33 | Recreation (Arts, sports) 34 | Defence (Police) 35 | Religious practice 36 | Government, politics 37 | Agriculture, fisheries 38 | Law 39 |
| 2 | Action 20 | Society 21 | Social activity (Employment) 22 | Information (Documentation) 23 | Amenities (Necessities) 24 | Transportation, telecommun. 25 | Communication (Media) 26 | Commerce (Finance) 27 | Industry (Production) 28 | Societal problems 29 |
| 1 | Life 10 | Biosciences 11 | Plant Life 12 | Zoology 13 | Invertebrates 14 | Fish, reptiles 15 | Birds, mammals 16 | Mankind 17 | Medicine 18 | Geography (Ecology) 19 |
| 0 | Fundamental sciences 00 | Astronomy 01 | Earth 02 | Meteorology 03 | Climatology 04 | Oceanography 05 | Hydrology 06 | Geophysics 07 | Geology 08 | Resources (Energy) 09 |

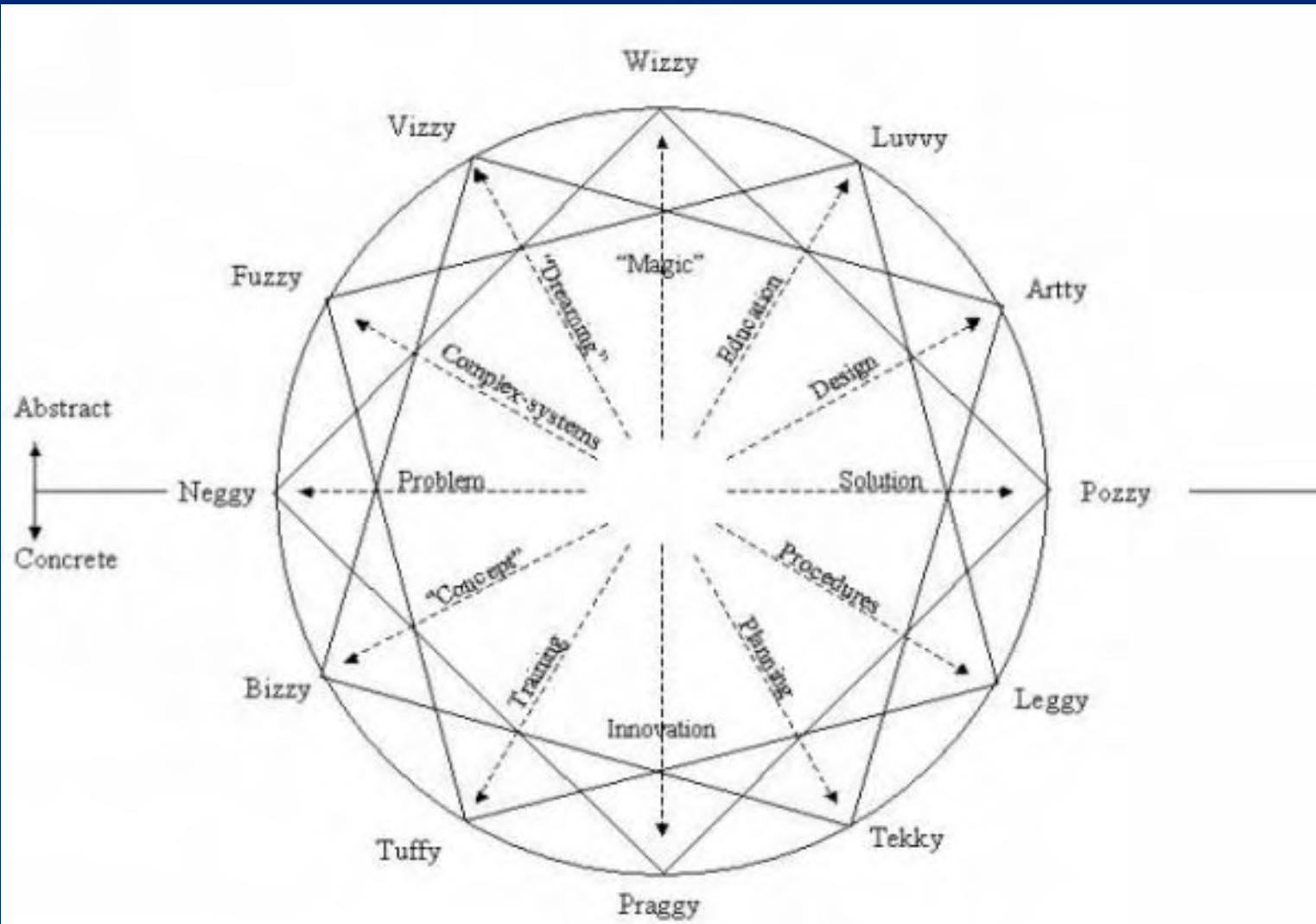
Mode 4: Triangular relationship mapping

ICA Social process triangles framework



Mode 5: Complementarity diagrams (“correspondences”)

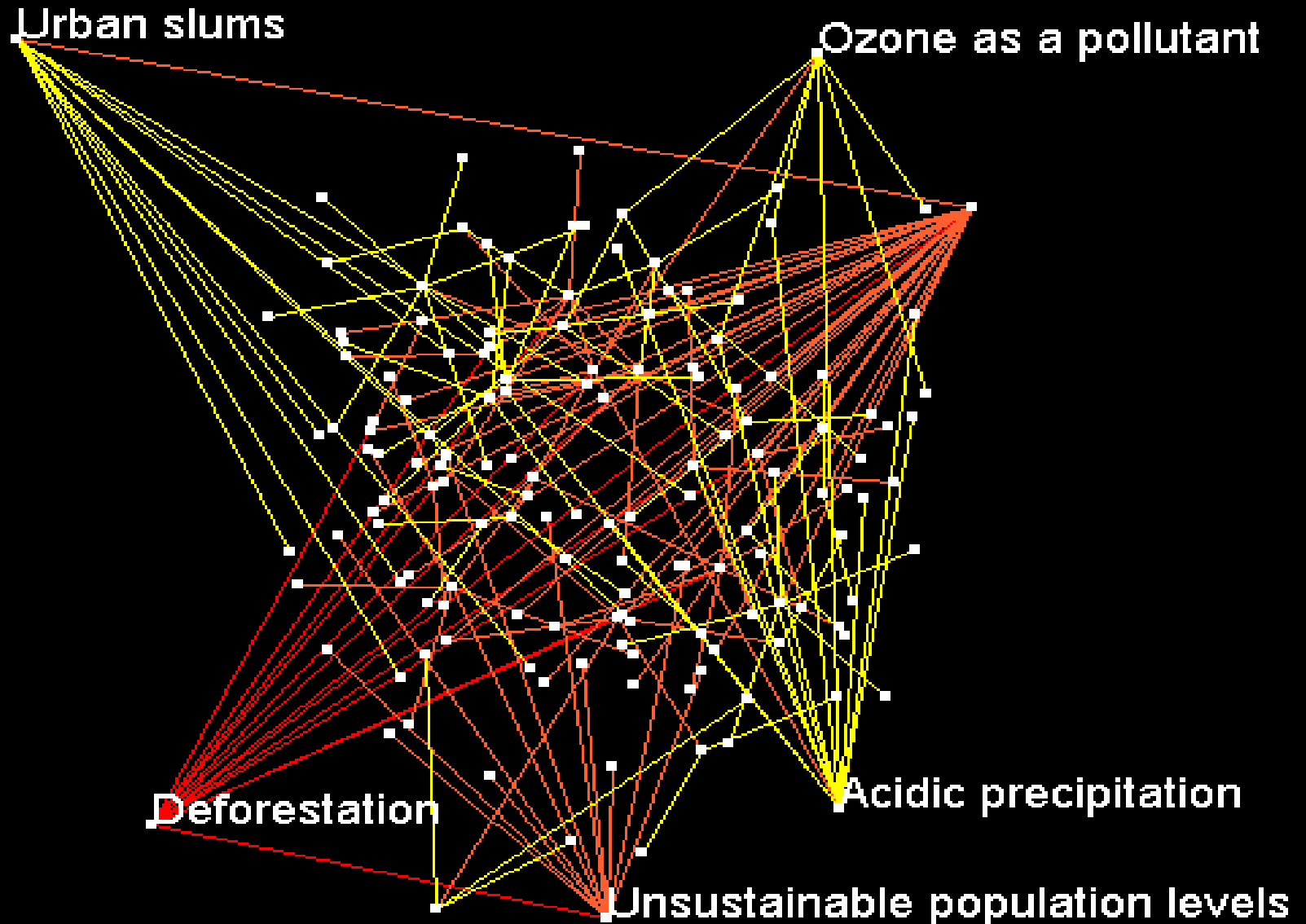
12 Languages of governance



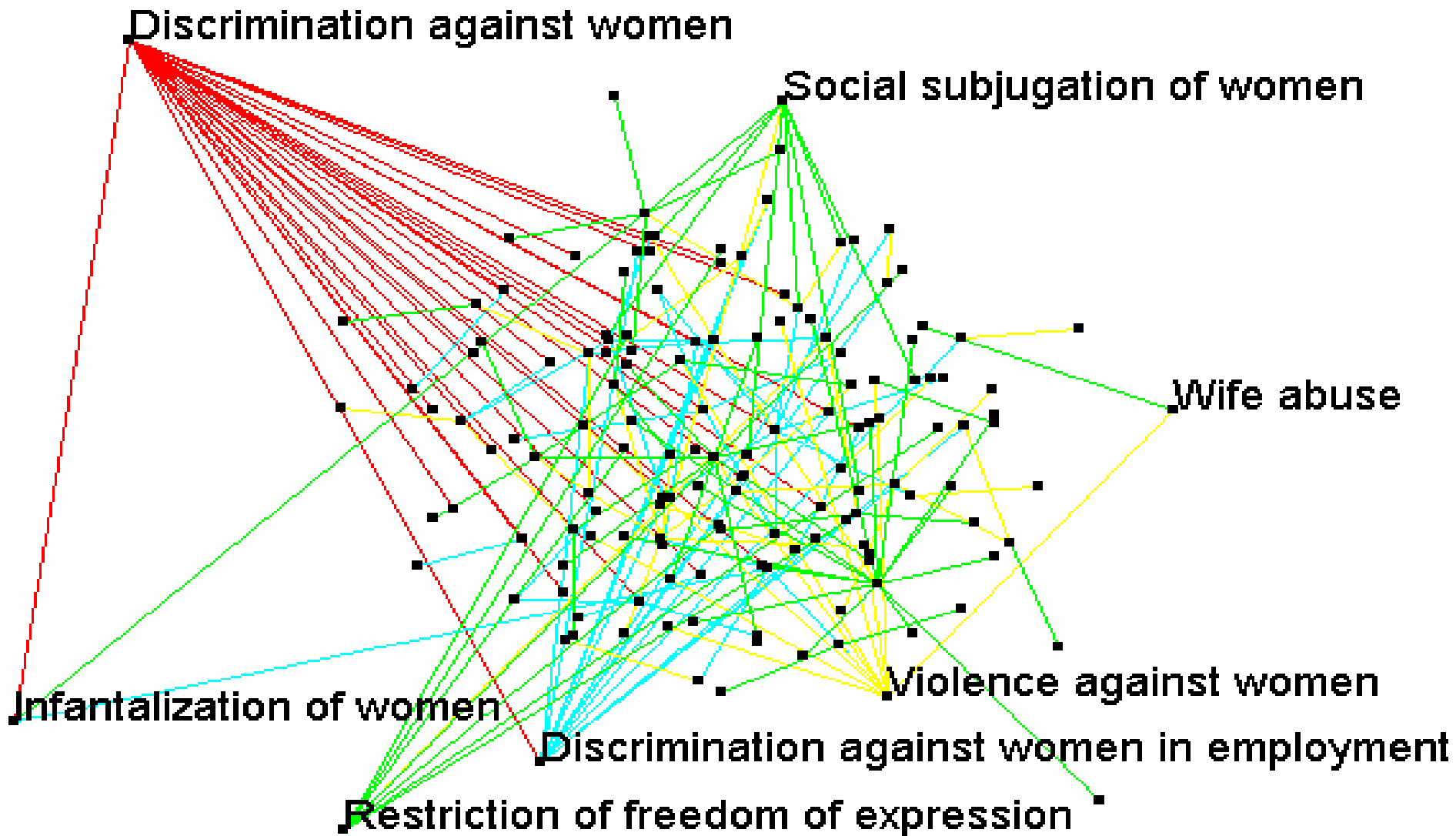
Mode 6: Network mapping

- Static maps
- Self-organizing network (“spring”) maps
- Touchgraph
- Decision Explorer

Conference mind-mapping

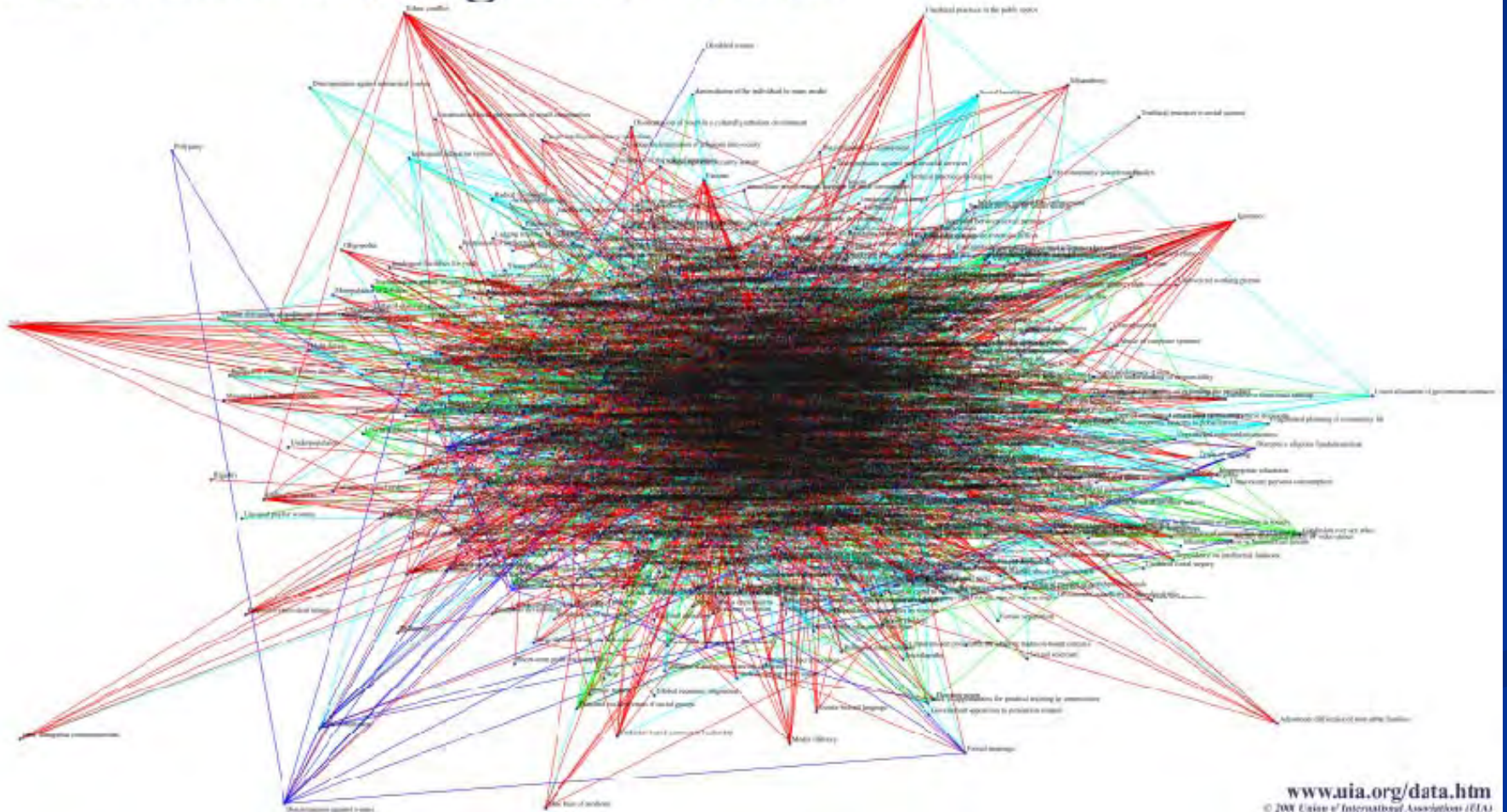


Conference mind-mapping

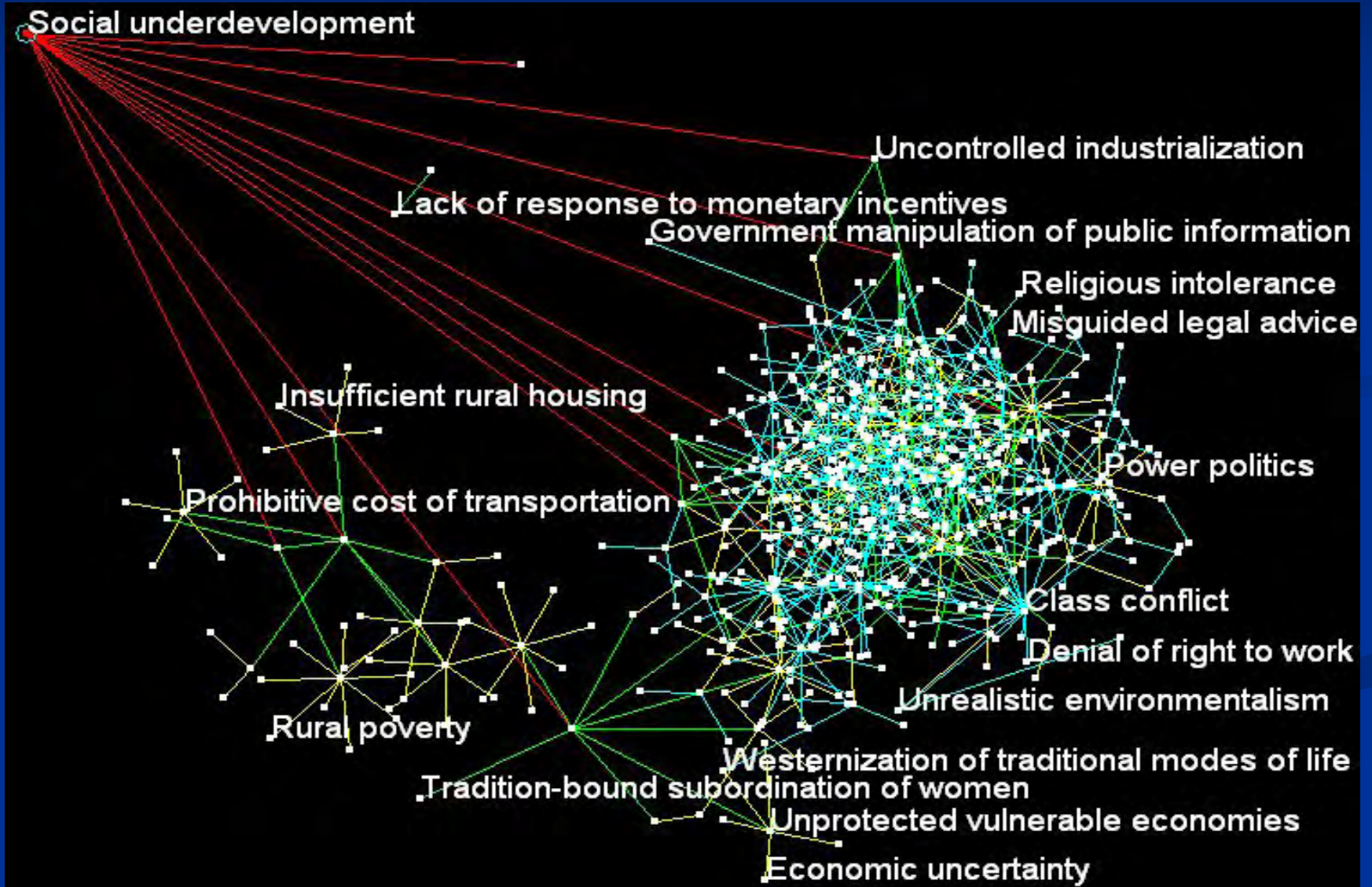


Scalable vector graphics

Discrimination against women



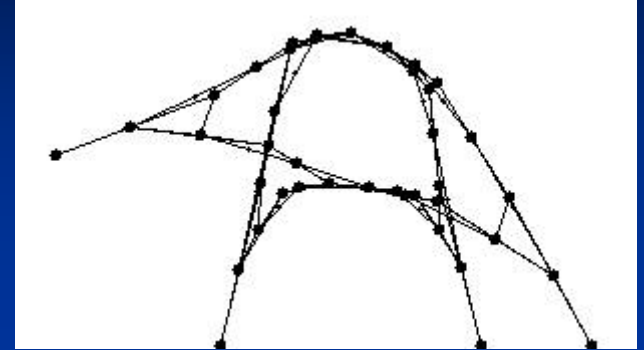
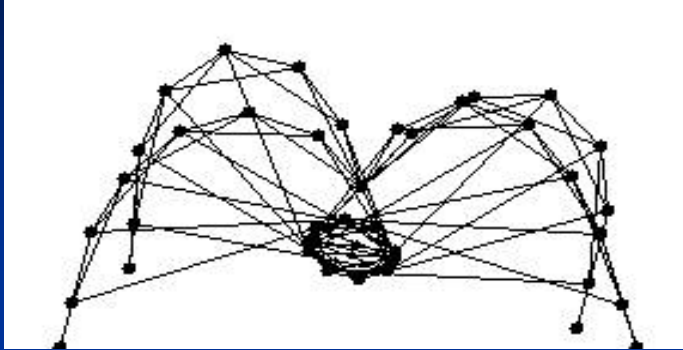
Network spring map



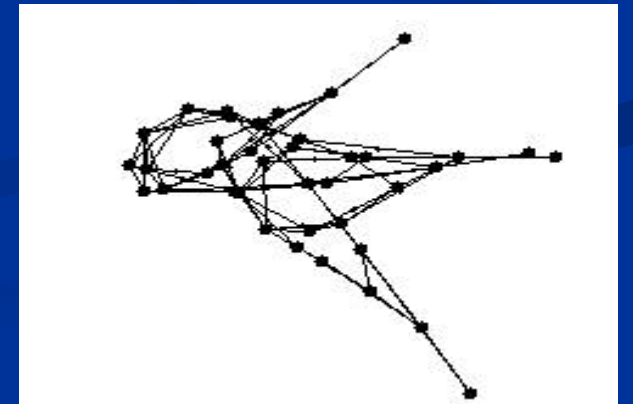
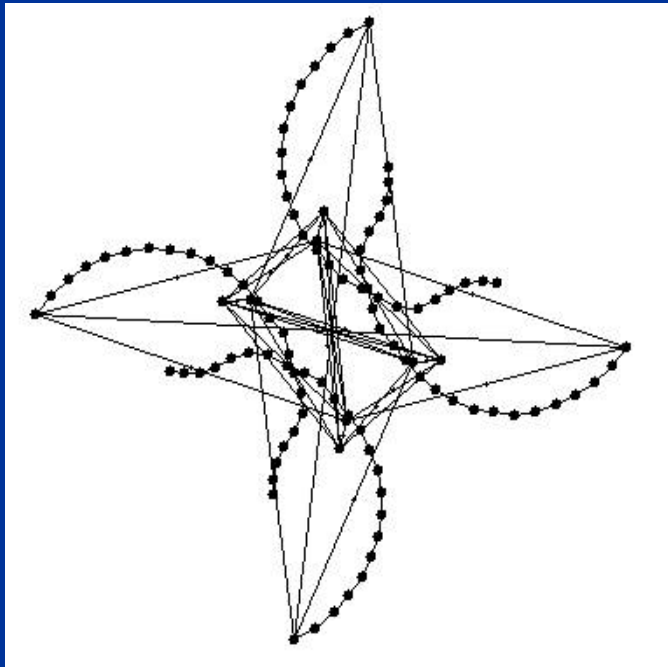
Mode 7: Models, simulations, interactive games

- Economic models
- *Limits to Growth*
- World modelling
- World building games

Interactive modelling: *Soda constructor*



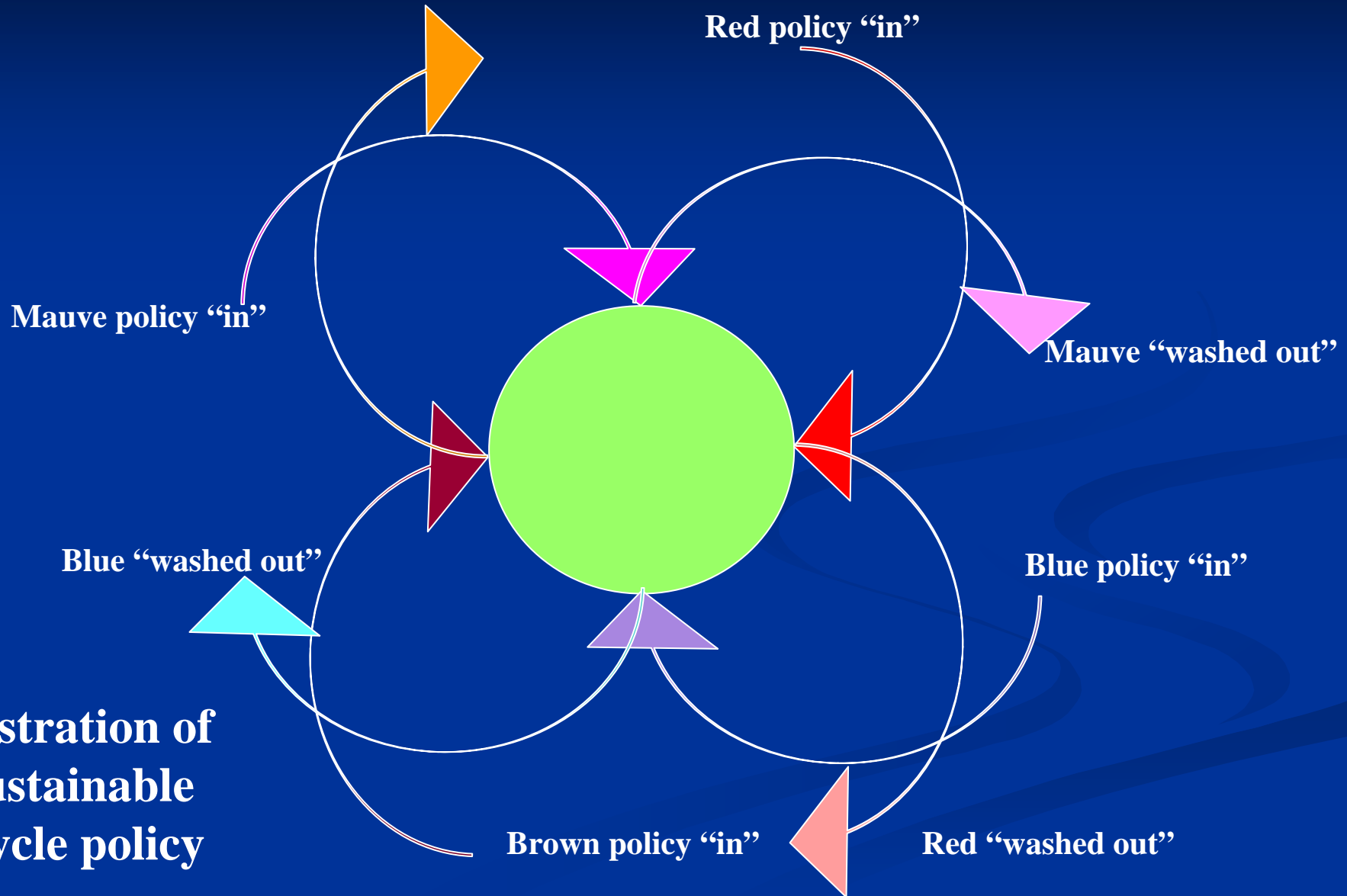
<http://sodaplay.com/constructor/player.htm?>



Mode 8: Circular relationship maps & loop representation

- Netmap
- UIA maps
- Loops

Crop rotation as a policy metaphor

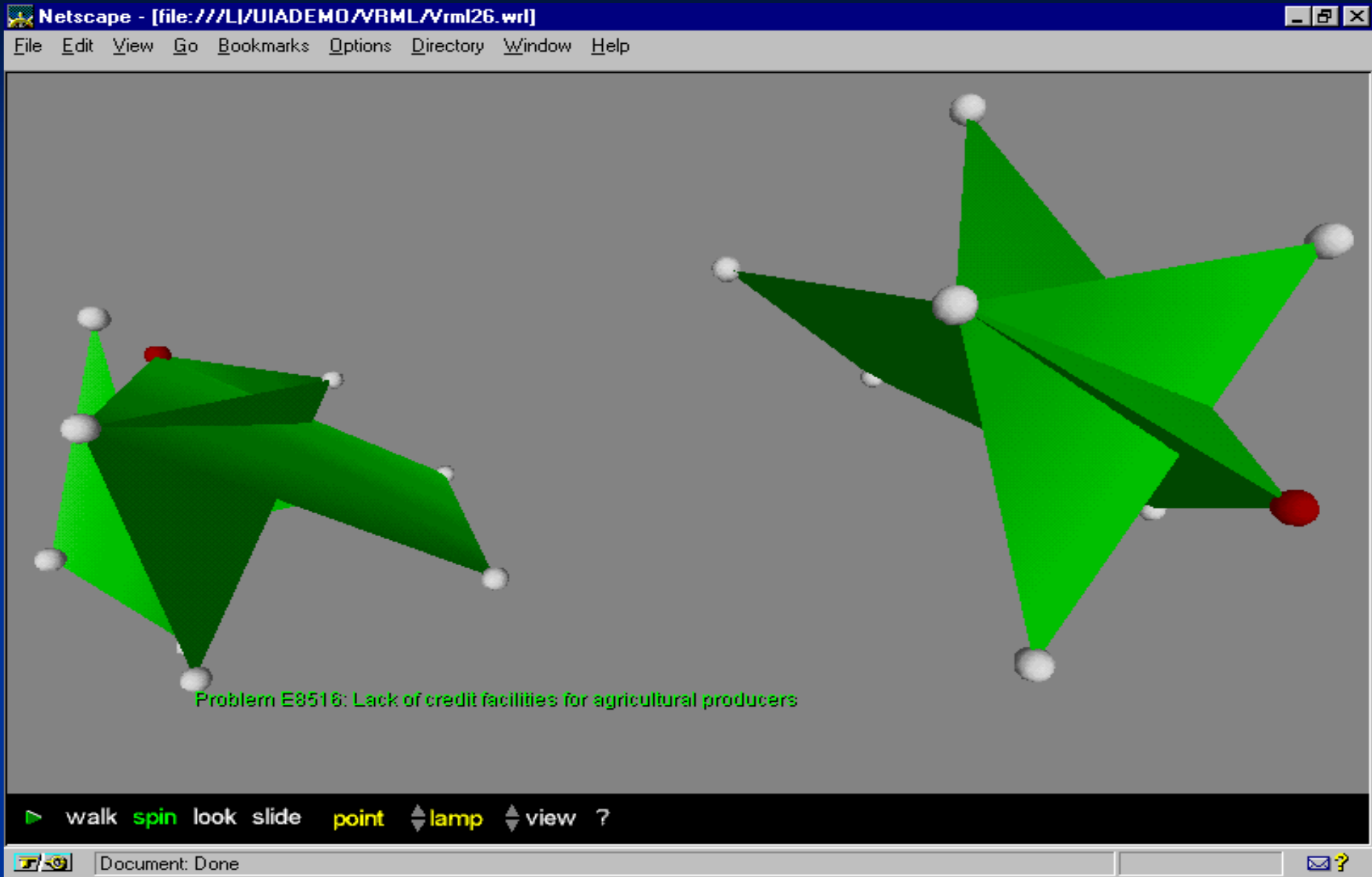


**Illustration of
a sustainable
4-cycle policy**

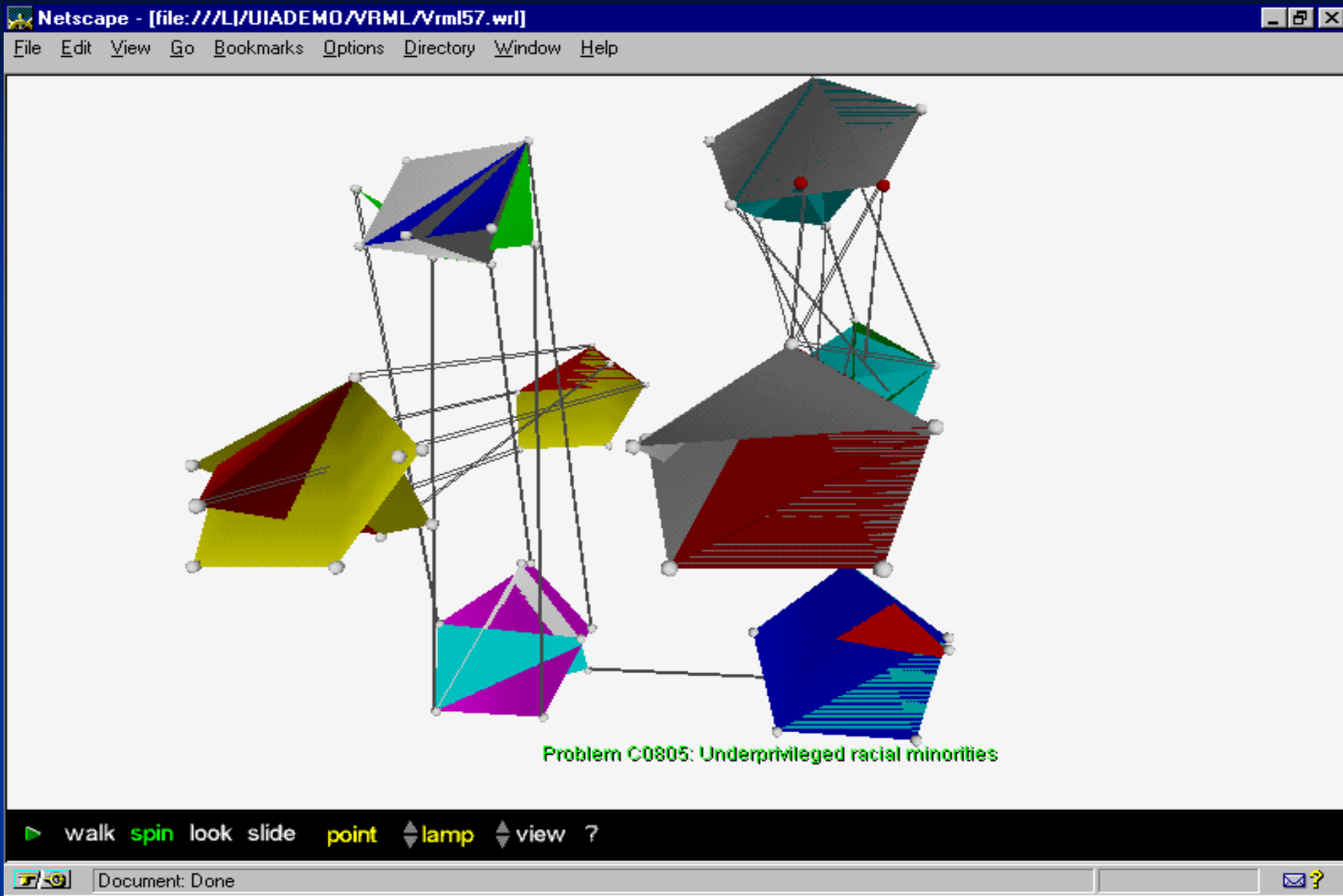
Progressive refinements of problem loops

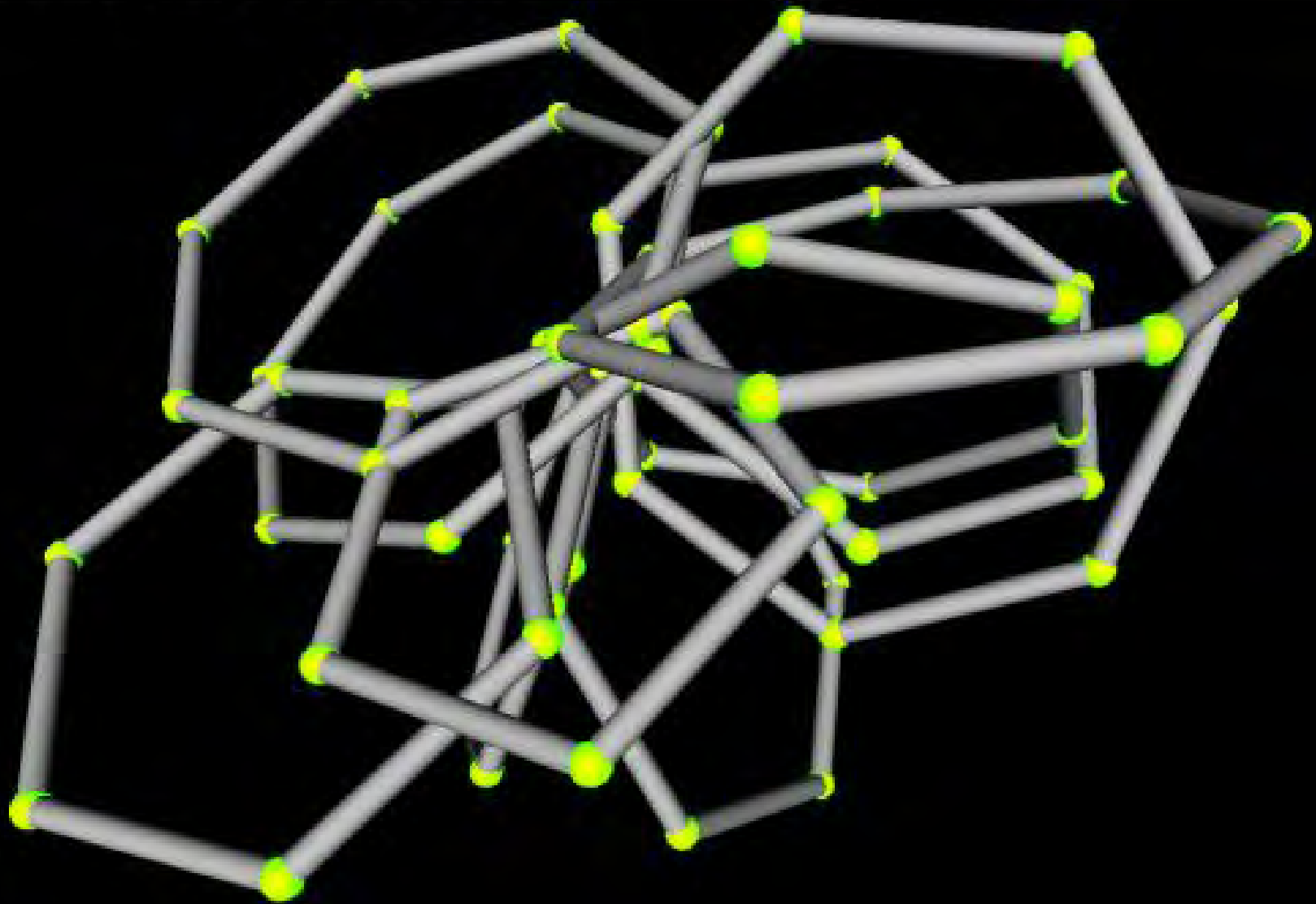
| Date | 1995 | 1999 | 1999 | 2000 | 2000 |
|--------------|--------------|--------------|-----------------|--------------|---------------|
| Chains | 9,519,722 | 15,000,000 | 46,474,882 | 16,091,877 | 1,239,769,768 |
| Profiles | - | - | 6,891 | 1,217 | 12,397 |
| 4-Loop | 115 | - | - | - | 230 |
| 5-Loop | 527 | - | - | - | 473 |
| 6-Loop | 3,058 | - | - | - | 1,163 |
| 7-Loop | 3,568 | - | - | - | 3,473 |
| 8-Loop | excluded | excluded | excluded | excluded | 10,600 |
| 9-Loop | excluded | excluded | excluded | excluded | 35,438 |
| Total | 7,303 | 6,000 | 15,958 | 8,253 | 51,555 |

VRML Example: World problem loop interlocks

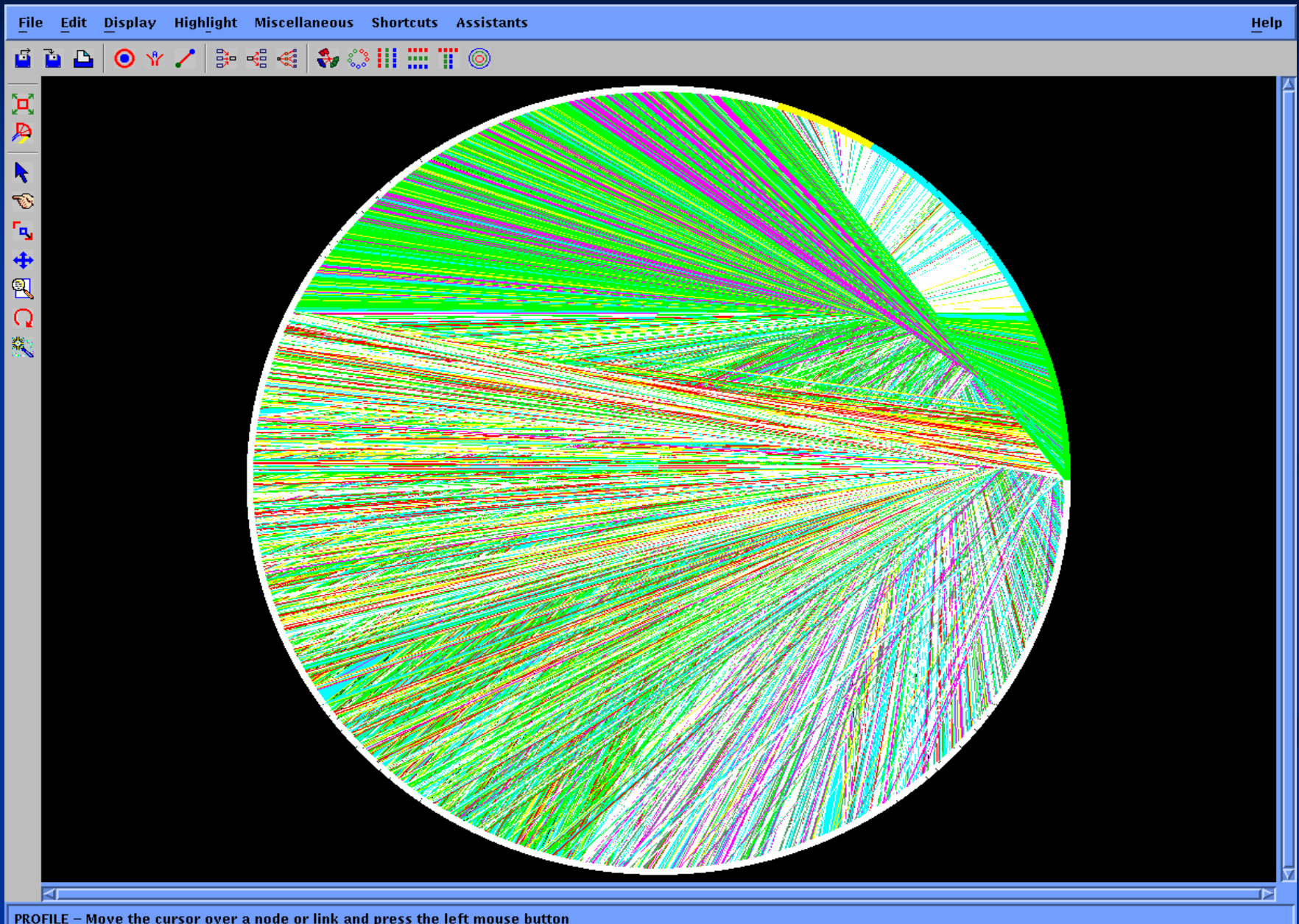


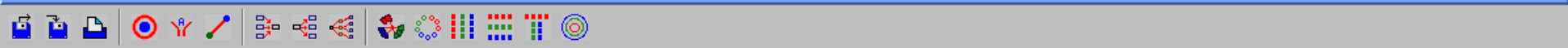
VRML Example: World problem loop interlocks





Netmap transaction analysis





A large, dense, multi-colored grid of lines covering the main window area. The lines are primarily cyan, green, and yellow, creating a complex, overlapping pattern. The grid is tilted and appears to be a visualization of a large dataset or a complex network structure.

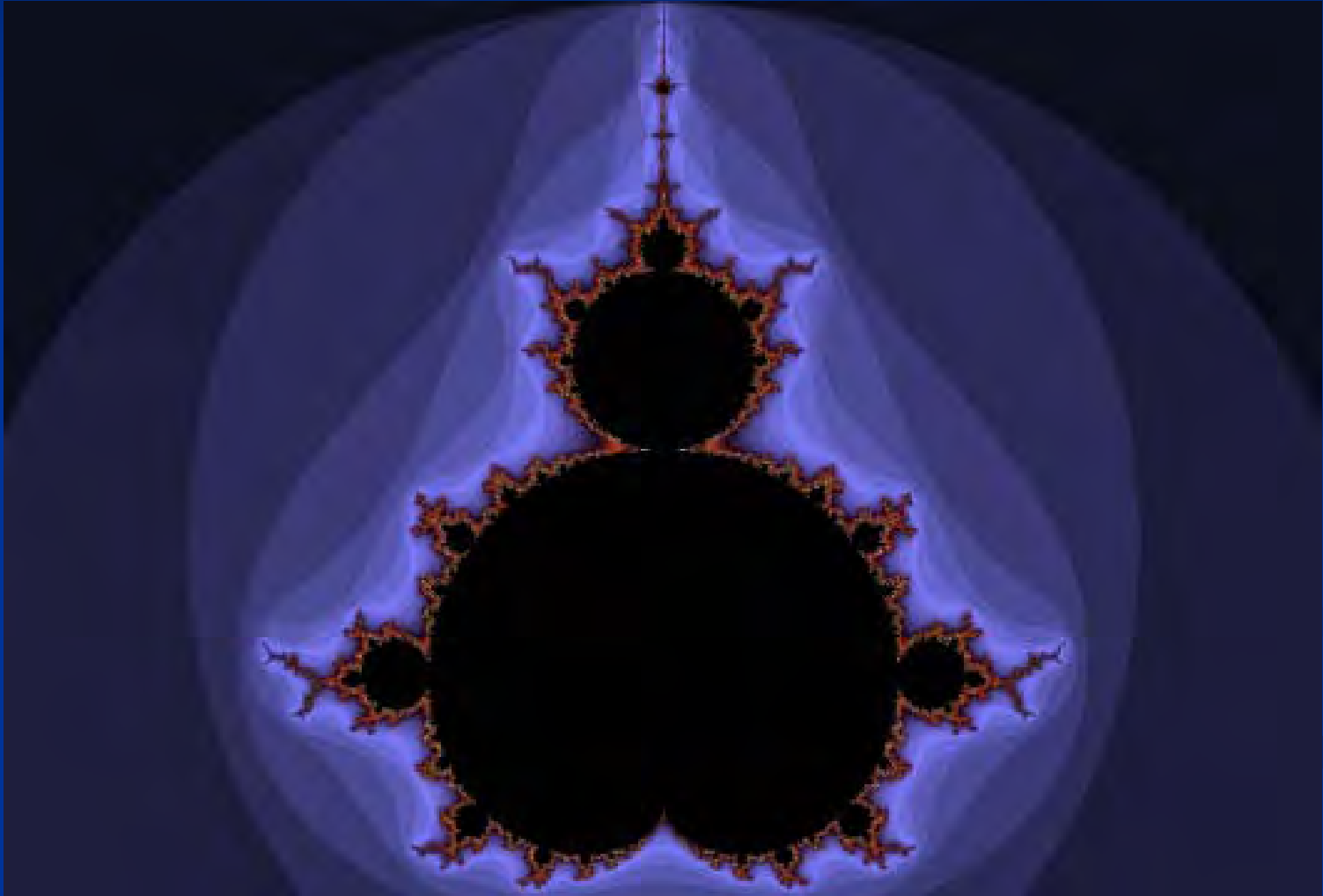
Mode 9: Multi-media, aesthetics

- Multi-media:
 - Beyond text >> Visualization
 - Interactivity
- Sonification
 - Comprehending complex pattern through sound

Mode 10: Mapping complexity plane

(Mandelbrot set fractal)

(vertical axis="real", negative at top; horizontal= "imaginary")



Comprehensible mapping of complexity

- Search for a “surface” onto which complexity can be mapped
- Challenge of mapping strategic & value dilemmas
- “Real” vs “Imaginary”
- Mapping network of terror (“real” and “imaginary”)
- *Psycho-social Significance of the Mandelbrot Set: a sustainable boundary between chaos and order* (2005)
- *Sustainability through the Dynamics of Strategic Dilemmas: in the light of the coherence and visual form of the Mandelbrot set* (2005)

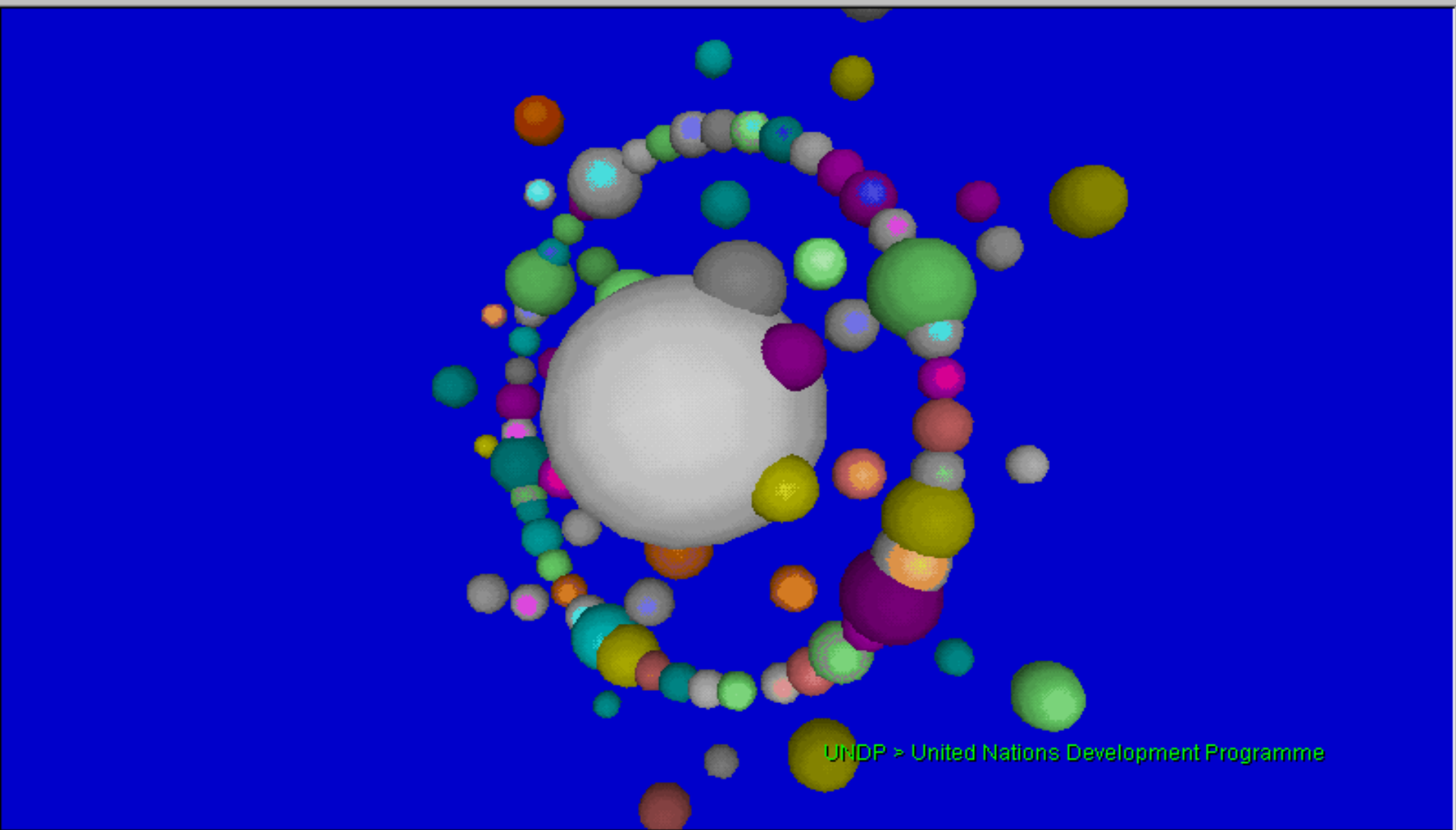
Mode 11: Spherically configured 3-D structures

- Polyhedra
- Tensegrity (*Synteegration*)
- Virtual reality
- Spherical accounting

VRML Example: Organizations (World Bank system)

Netscape - [file:///L:/UIADEMO/VRML/Vrml107.wrl]

File Edit View Go Bookmarks Options Directory Window Help

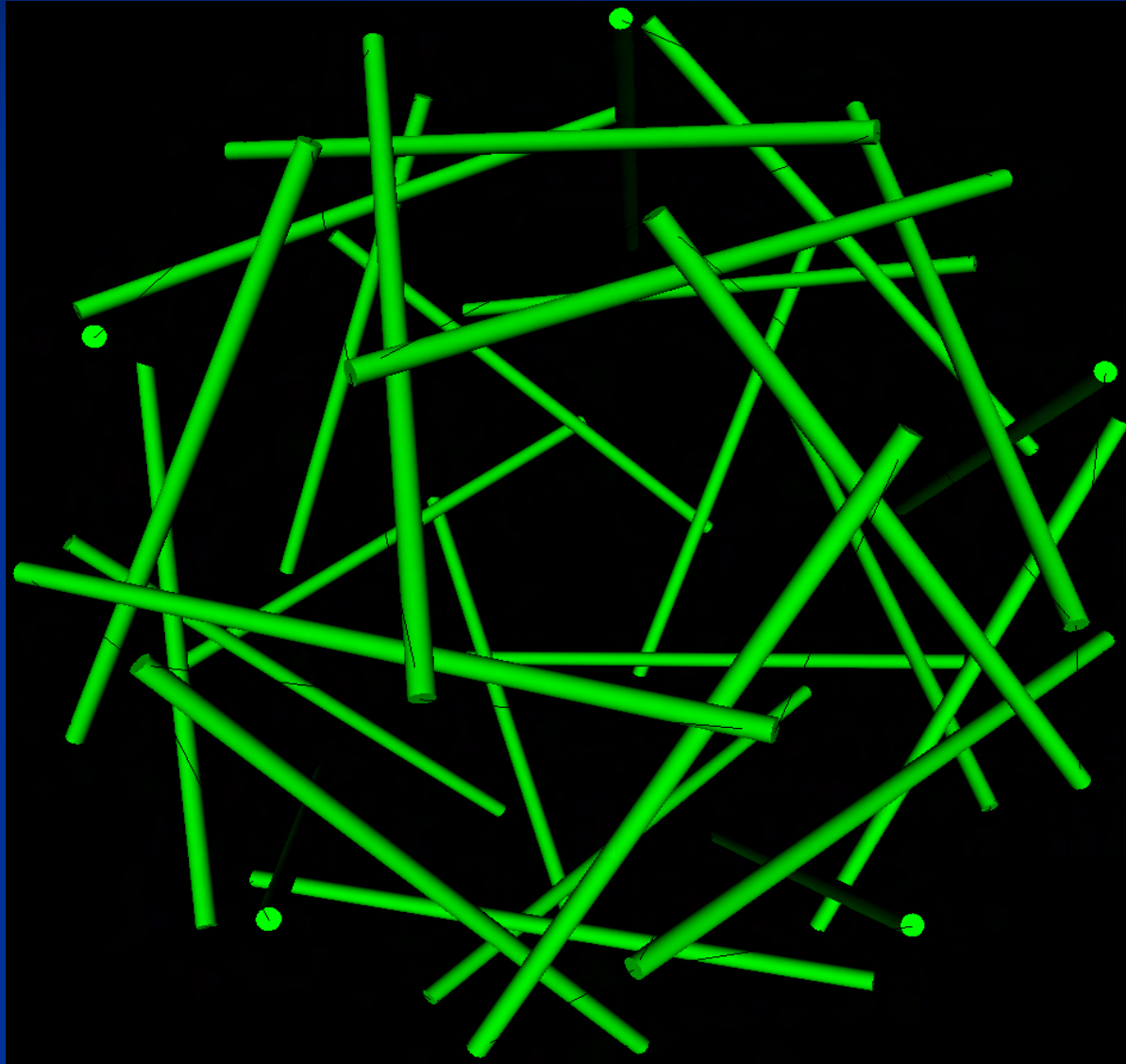


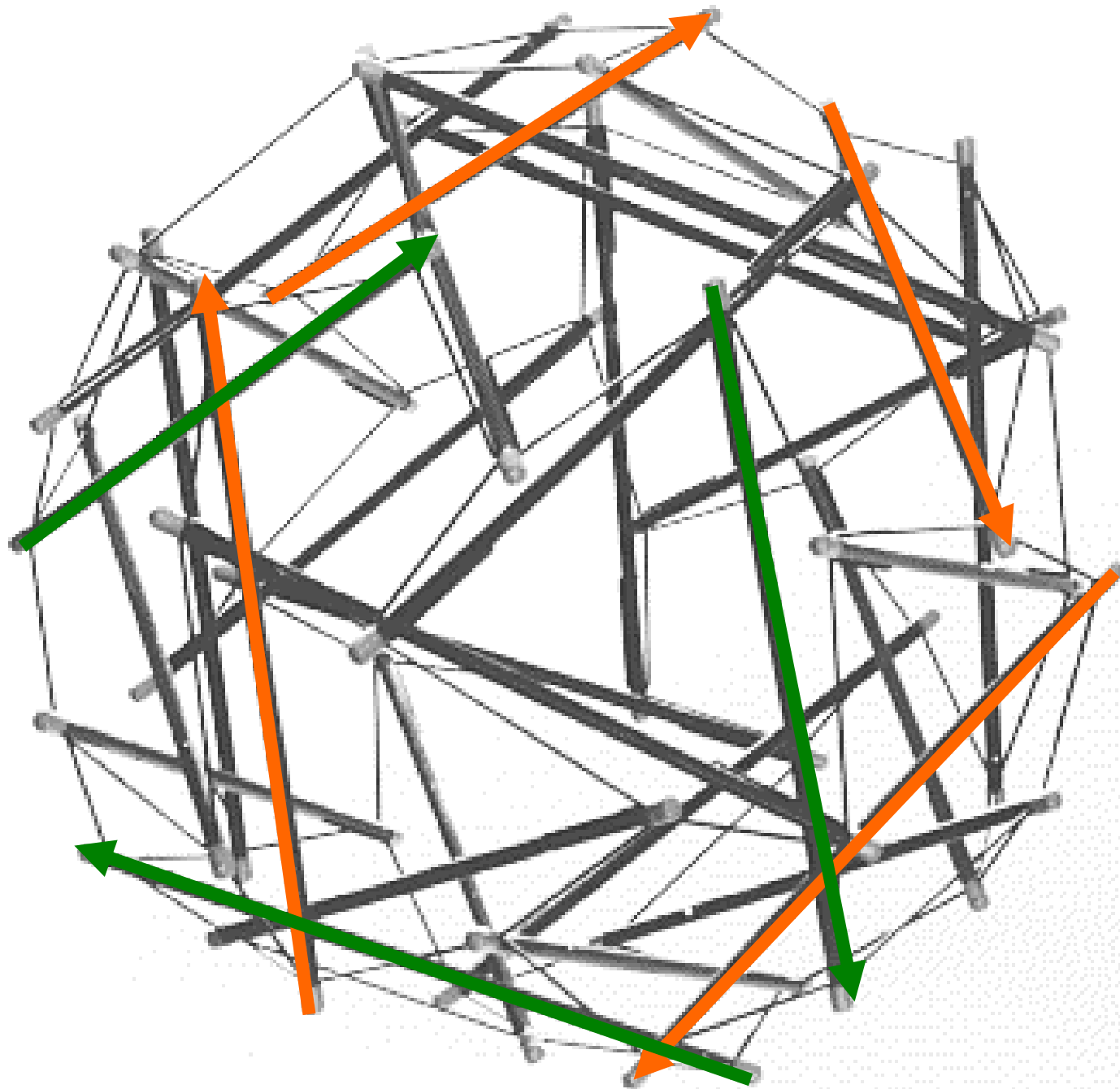
UNDP > United Nations Development Programme

▶ walk spin look slide point ⬆ lamp ⬆ view ?

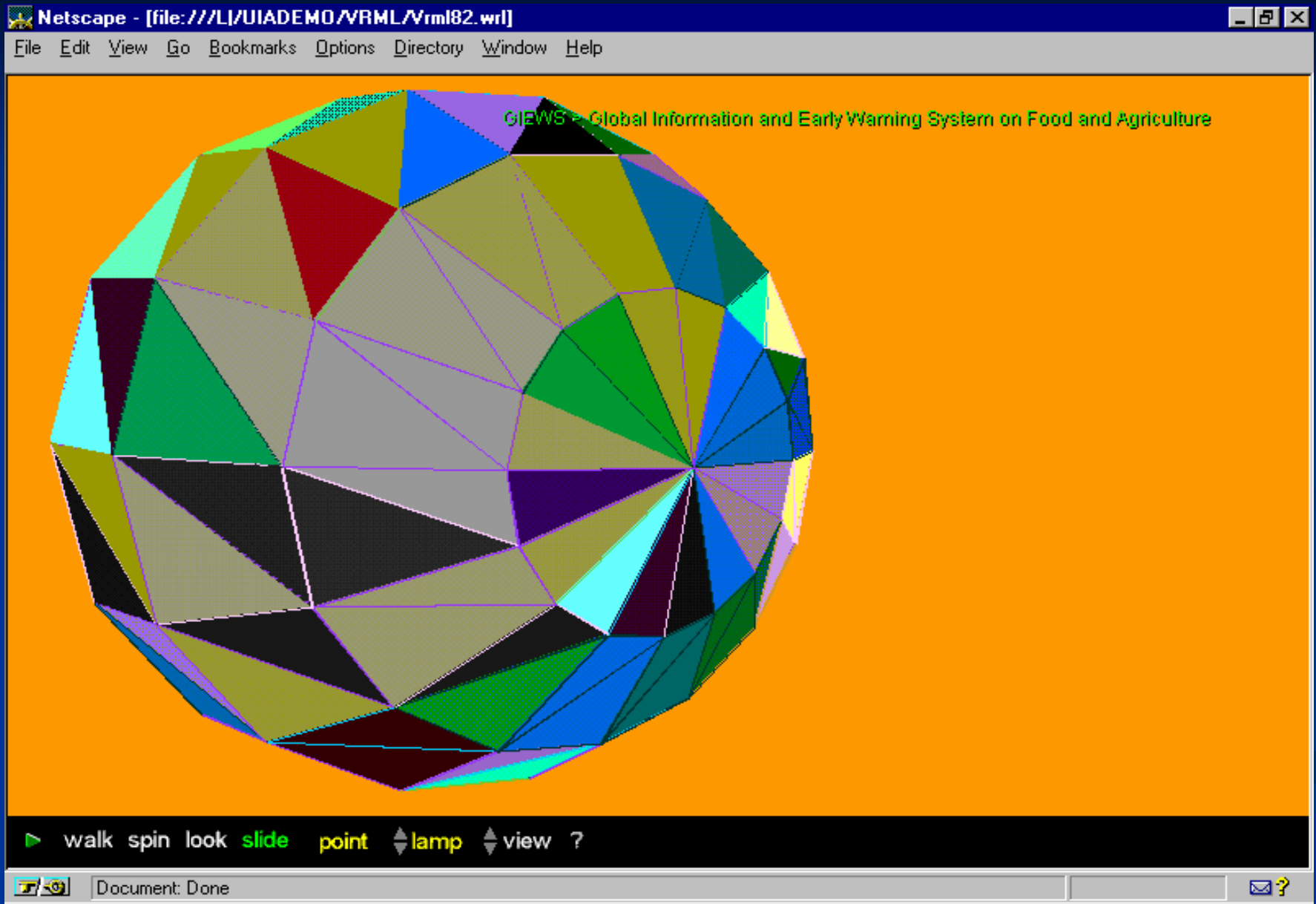
Document: Done

Tensegrity in virtual reality





VRML Example: Organizations (EU system)

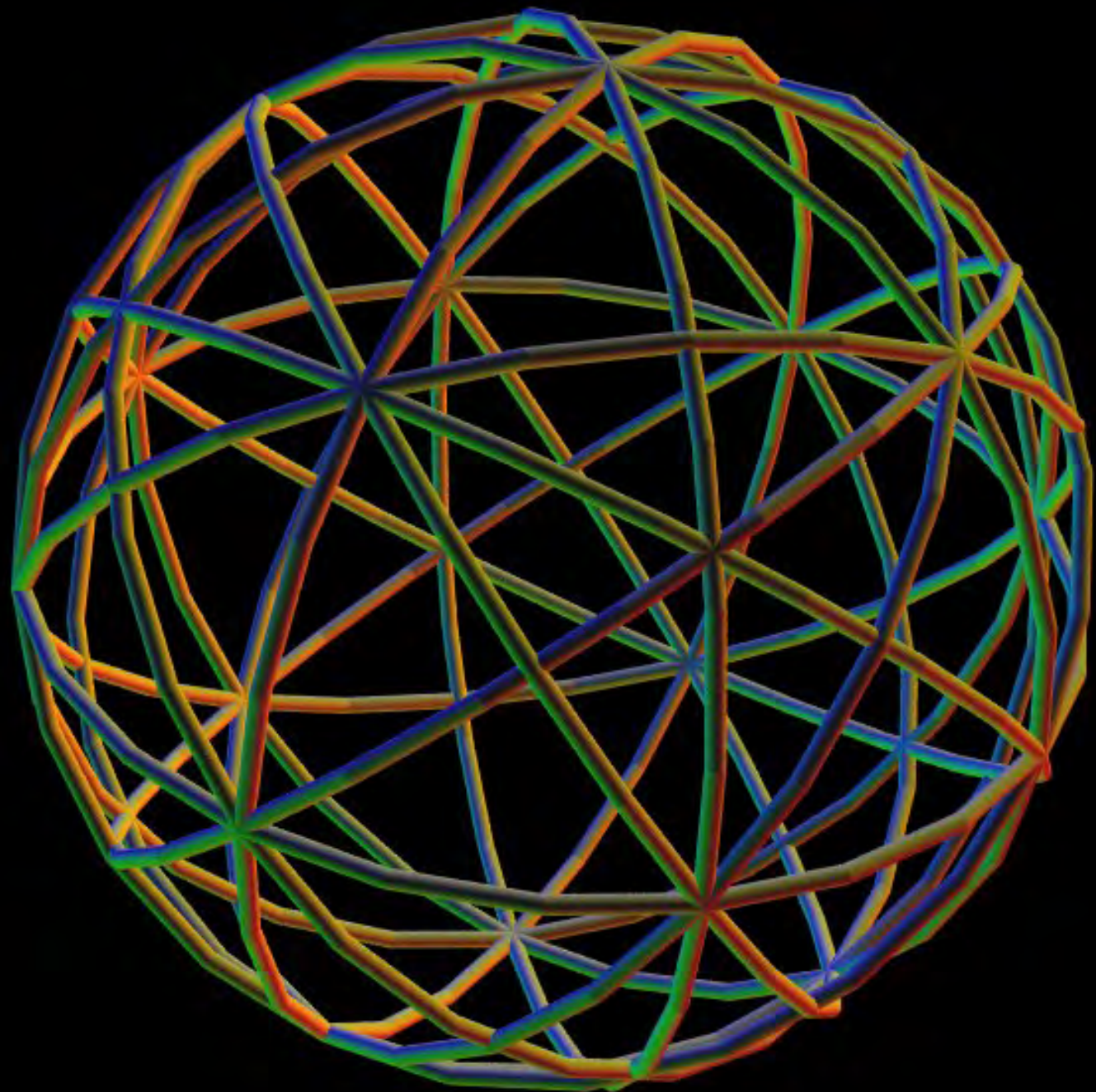


Vulnerability of marriage as an institution 34



[Discrimination against women](#)

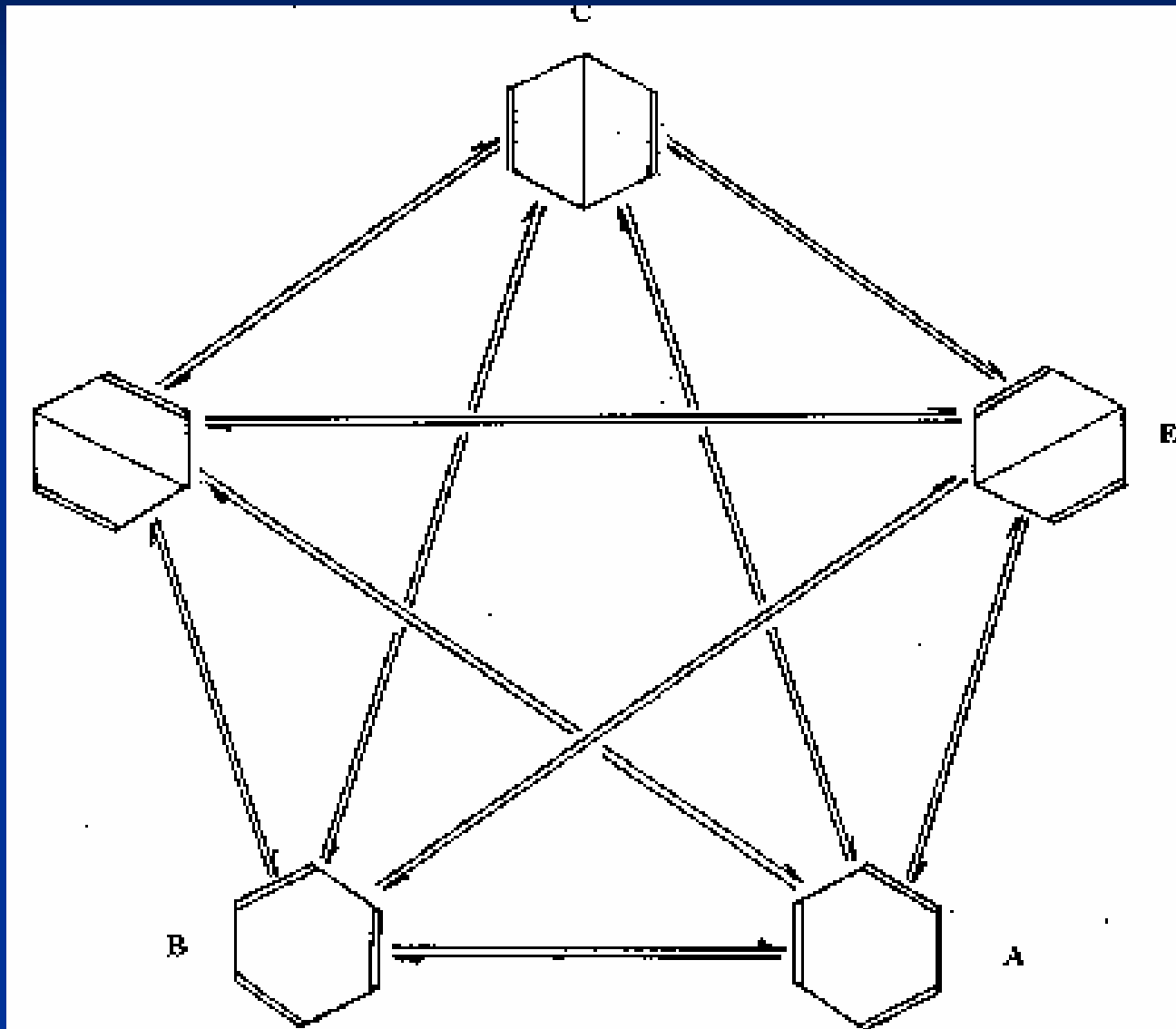
Virtual reality configuration of relationships from [World Problems](#) database (see below)



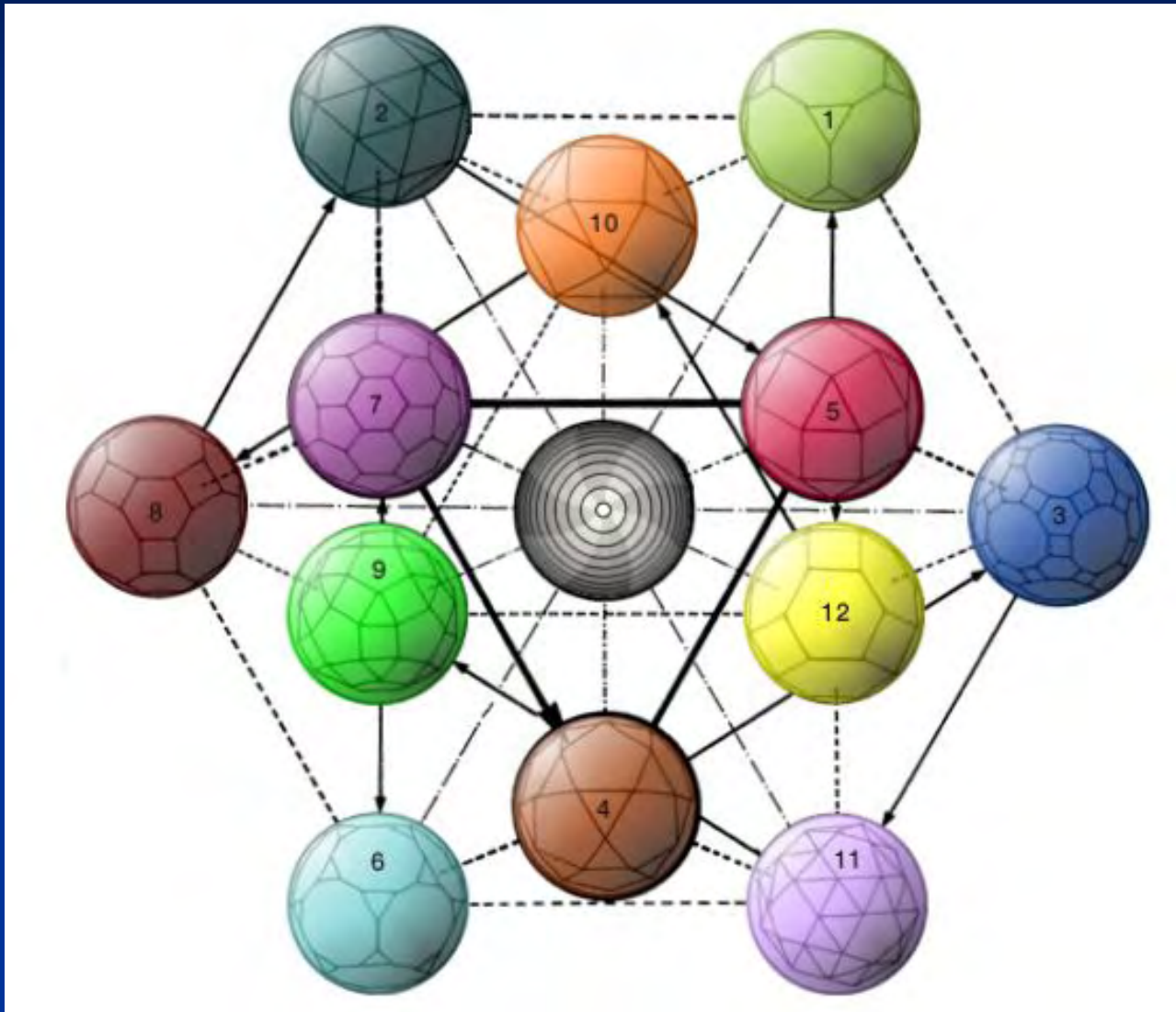
Mode 12: Transformable structures , morphable images

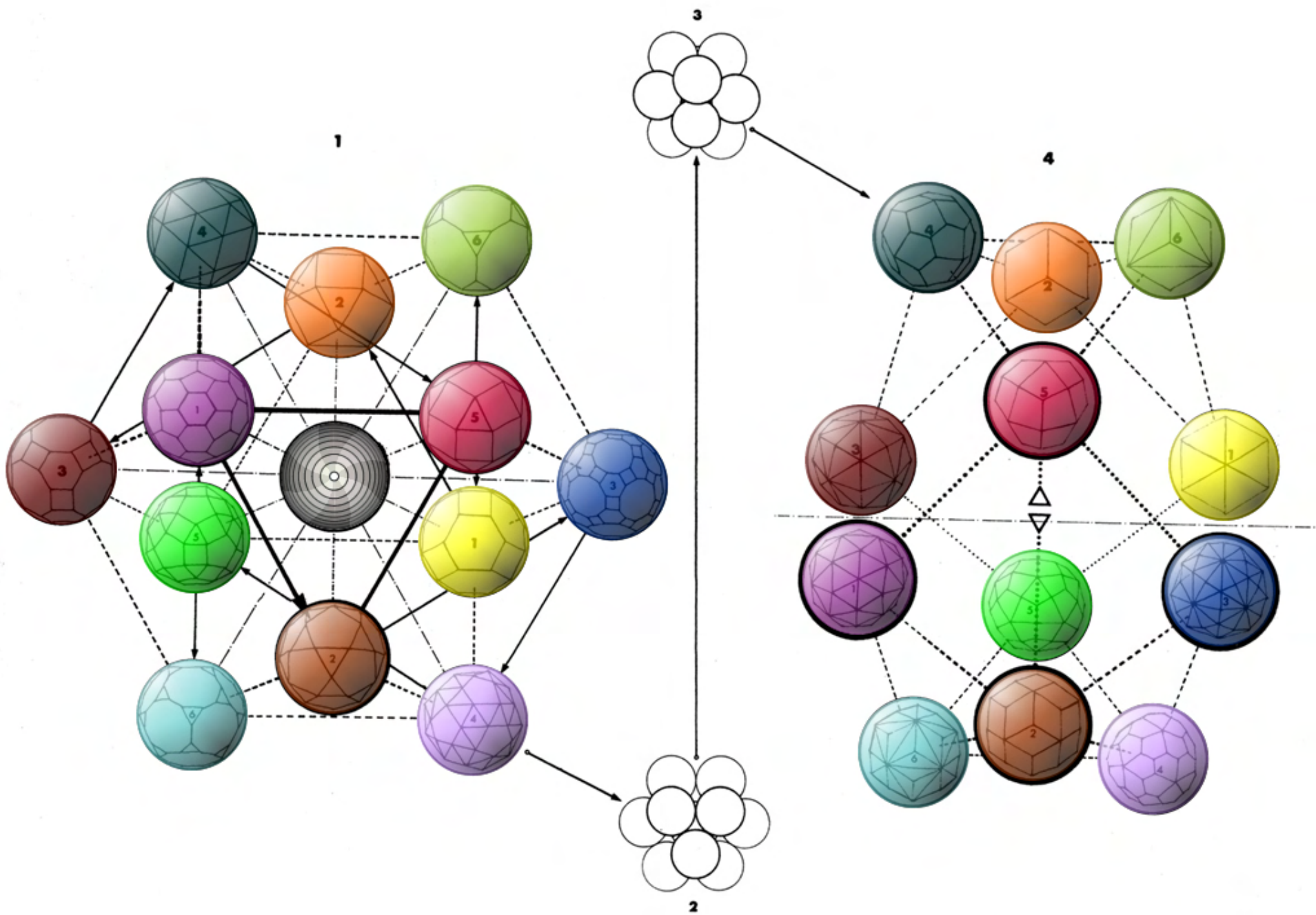
- Vector equilibrium (“Jitterbug”)
- Morphable images

Resonance hybrids: key to future sustainability ?



“Dodecameral” integration





Transformations of vector equilibrium

