
Intuition: a Metaphysical Mosaic

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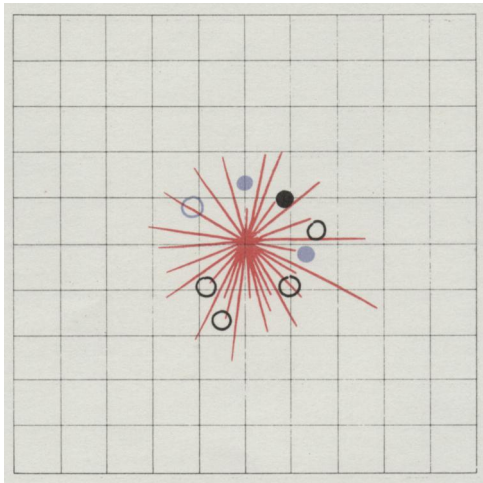


Fig. 7: The task of the city is to help the source of energy respond to all challenges.

sectors of individual expression) we can answer that it is to help the source of energy, that is the individual, to respond to all challenges and to develop and meet as many new ones as possible (Fig. 7). If this can be achieved from the individual's first relationship to his environment, then the source of his energy becomes stronger and can overcome even more hindrances. Such a well developed source of energy will finally be able to conquer the whole space, physical, sensory, intellectual which surrounds it, although this does not mean that it can conquer all obstacles or hindrances within this space (Fig. 8).

If a city can achieve this goal, this will no longer mean that only the fittest can survive but that there will be a *development of all sources of creativity in all directions*. This poses two questions. First, is it possible to develop every source of creativity,

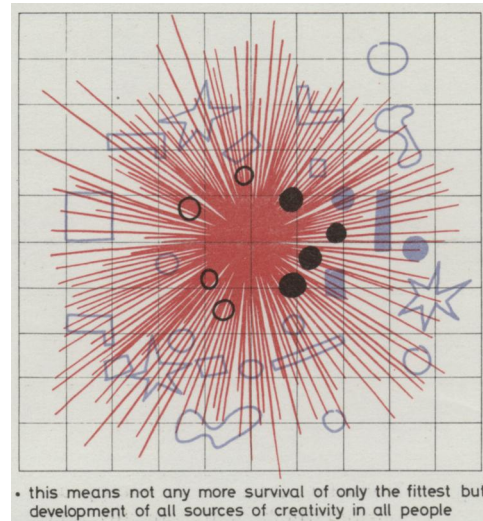


Fig. 8: A stronger source begins to be strengthened more and more and conquers wider spaces.

not only in some directions but in all directions, so that it can overcome all its challenges and develop up to the limits set by its biological genetic inheritance? Second, is it possible for a city to achieve this for all its citizens and not only for the fittest?

I do not know the answer to these very difficult questions. I can only say that it must be an important task of the city to help every individual to develop his own creativity to the fullest, and that we must leave it to life itself to prove whether this can lead to the survival of all and not only of the fittest. Personally I believe that we cannot allow ourselves, for moral or other reasons, to help only the fittest, or to help individuals develop in one direction only. We have at least the moral obligation to work to provide the kind of city that can help everybody to develop in the best possible way for himself.

Intuition: a Metaphysical Mosaic

R. Buckminster Fuller

God gave man a faculty
Beyond that of his and other creatures'
Magnificent physical brains —
And that unique faculty
Is the metaphysically operative mind.

Brains apprehend and register
Store and retrieve
The sensorial information
Regarding each special case experience.

Mind alone can and does search out
The integral pattern concepts

And generalized principles
Which hold true
Throughout whole fields of experience.

Mind alone empowered humanity to conceive
Of objective ways to employ
The subjectively acquired concepts
Of generalized principles
Such as *leverage* —
And thereby favorably to alter
The environment —
By — for instance — differentiating out
All the fundamental atomic structurings

And subsequently employing
 Their uniquely recombining synergetic behaviors
 Thereby to attain
 Greatly augmented
 Relative human advantage.

For synergy is one of those
 Generalized principles
 Which is scientifically defined as
 Behavior of whole systems
 Unpredicted by the behaviors
 Of any of its separate parts
 Or by any subassemblies of its parts
 As for instance is disclosed by
 The attraction for one another
 Of two or more remote
 Massive bodies
 Such as the Earth and Moon
 Or of any two or more,
 Larger or smaller.
 Celestially neighboring massive bodies
 Be they metallic or non metallic,
 Was first observed
 And hypothetically explained,
 By Kepler
 To account for the geometrical regularities
 Of inter-coordination of their orbits
 He found to be demonstrated
 By the motions of the Sun's planets.

This mass attraction was shown later,
 By Newton,
 To increase fourfold
 Each time the distance between two bodies
 Was halved.

There being no property
 Of any one of the bodies
 Considered only by itself
 That predicts that it will attract,
 Or be attracted by, — Another body
 It is clearly in experimental evidence
 That the phenomenon *mass attraction*
 Can only be disclosed
 By observation of the behaviors
 Of the two or more bodies
 Comprising the observed system's
 Comprehensively measured
 And mathematically described
 Variations of relative proximity
 Relative mass
 And relative dimensions.

This is synergy.
 Synergy is the only word that means
 Behavior of whole systems
 Unpredicted by the separate behaviors
 Of any of its parts.

Even less known and understood
 Is the word *precession*
 And the phenomenon
 Which it uniquely identifies.

Precession identifies
 The remote effects
 Of independently moving bodies

Upon one anothers'
 Motion inter-patternings.
 Mass attraction is to precession
 As a single sound is to music.
 Precession is
 Regeneratively progressive mass attraction.
 The elliptic orbiting
 Of the sun's planets
 As well as the solar system's motion
 Relative to other star groups
 Of the Galactic Nebula
 Are all and only accounted for
 By precession.

Precession is second degree synergy
 It is not predicted by mass attraction
 Considered only by itself.
 Not until we learn by observation
 That the mass attraction
 Of any two proximate bodies in motion
 Imposes a motional direction
 At ninety degrees to the mass attraction
 Do we learn of this second surprise behavior
 Of two or more bodies.
 Thus is the Moon
 Precessed into orbit about the Earth
 As Earth and Moon together
 Are precessed into orbit around the Sun
 Yielding in a ninety degree direction
 To the Sun's massive pull.
 Because the sub motions cannot explain the behaviors
 Of their progressively encompassing
 And progressively complex systems
 We learn that
 There are progressive degrees of synergy.

And though one percent of society
 Has superficial awareness
 Of the existence of mathematical regularities
 Synergetically displayed by *mass attraction*
 And super synergetically displayed as *precession*
 No scientist has the slightest idea
 What mass attraction is
 Nor why either synergy or precession exist
 Or act as they do.

It is therefore in experimental evidence
 That the origins of science
 Are inherently immersed in mystery,
 And all of the physical universe's
 Discontinuous energy events
 Are interspersed with mystery.

The why-for and how-come
 Of omni-interaccommodation
 Of all the known family
 Of weightless, eternal, generalized principles
 Found by scientific observation
 To be metaphysically governing
 In elegant mathematical order
 All the scenario universe's
 Interrelationships, transformations and transactions
 Without one principle contradicting another
 Is also absolute mystery.

Synergy permits
 Humanly conceived and executed

Rearrangements of its environmental constituents
In ways which are ever more favorable
For the regeneration of life
Aboard our Spaceship Earth.

Thus metaphysically equipped
To first apprehend, then comprehend
The significant potentialities of
The generalized principles
Permeating their physical experiences
Were humans gifted
Imaginatively and teleologically
To employ and process
Complex information.

Thus also humanity is permitted
By God
To participate in meager degree
In God's own vast
Evolutionary designing capabilities.

Key to humanity's scientific discoveries,
technical inventions,
design conceptioning,
and production realizations
Has been a phenomenon
Transcendental to humanity's
Self-disciplined
Objective concentrations of thought
And deliberate acts —
A phenomenon transcendental
To humanity's inventive capabilities.
That key is the first
And utterly unpremeditated event
In all discovery, invention, and art.
It is humanity's *intuitive* awareness
Of having come unwittingly upon
An heretofore unknown truth —
A lucidly conceptual,
Sublimely harmonic,
Regenerative relationship of a priori universe —
An eternal principle —
And then seconds later
The *intuitive* awareness
Of what the conceiving individual human
Must do at once
To capture the awareness of

And secure the usefulness of
That eternally reliable principle
For all humanity
For now and henceforth.

Again and again —
Step by step
Intuition opens the doors
That lead to man's designing
Of more advantageous rearrangements
Of the physical complex of events
Which we speak of as the environment
Whose evolutionary transition ever leads
Toward the physical and metaphysical success
Of all humanity

And because its design
Permits humanity to live anywhere
Around our planet's watery mantle

And because this sailing craft
We are now to launch
Is the epitome of design competence, —
As manifest at this moment
In the forever forwardly mounting and cresting wave
Of design capability, —
We herewith give
To this world-around dwellable
High-seas sailing craft
The name — INTUITION.

As a comprehensive and anticipatory Design scientist
I am aware that the reciprocating engines
Of all our automobiles
Are only about
Fifteen percent efficient
While our gas turbines
Are about thirty
And our jet engines
About sixty
Percent efficient
In delivering effective work power
From the energies they consume.
The overall mechanical efficiency
Of World around humanity's power-to-work
As presently designed and tool-ed-up
Is only about four percent
While experienced engineers and scientists concede
That the World's industrial network
Could easily be redesigned to operate at better
Than an overall fifteen percent efficiency.
Ergo I have long been intuitively aware
And am now scientifically confident
That a physically permitted design revolution
Is indeed feasible
Which can fourfold the present design tool-up
Raising it to a meager
Sixteen percent
Overall efficiency
Which can
Do so very much more
With progressively ever less
Of kilowatts, minutes, and grams
Of the physical resources of our Spaceship Earth
To be invested in
Each function accomplished
As stated in structural magnitudes
Of loads and stresses
Effectively withstood
As well as in magnitude ratios
Of mechanical, chemical
And electrical performances —
All as performed
Under comprehensively and specifically stated
Environmental conditions
Of pressure, heat, etc.
And by virtue of all the foregoing —
And without having anyone
Prosper at the expense of another —
To be able to raise
And multiply.
The overall percentage of humanity
Enjoying a satisfactorily adequate standard of living
From the world's present forty percent «haves»
To a one hundred percent «haveness»
Of all the humans now aboard
Or about to come aboard

Our Spaceship Earth
Which witnessed a condition
Only two-thirds of a century ago
When less than one percent
Of its human passengers
Enjoyed an, in anyway, comparable standard of living.

I also realize intuitively
That the elimination
Of the condition of resource inadequacy
And thereby the elimination of human want
May probably eliminate war
— or *quick death* —
Which is always consequent to the overlong protraction
Of the slow and more anguished poverty's
Slow dying
As brought about by lethal ignorance
In respect to the design revolution potentials
As society takes its only known recourse
In political actions
Which can but throw the «Ins» out
Or «pull the top down»
Unwitting that the design revolution
Could effectively elevate
Not only all those now on bottom
But also those now already prospering
To higher levels of advanced living
Than have as yet been realized
By any humans
Without taking away
Or diminishing the advantages of any humans.

But as of this old-to-new era's
Threshold crossing moment
Ignorance of the design revolution potentials
Is pervasive and its vacuum persuades
The most powerful political thought
Of the largest organized groups of society
— Amongst the sixty percent of humanity
Now aboard Earth
Who are as yet «have nots» —
To assume that
Since there seemingly
Is nowhere nearly enough
Of vital resources
For all to be successful
And in current fact
Only enough to support a minority
The only fair condition for society
Is one of comprehensive destitution.

And a camaraderie of poverty
Which ever and again
Can assuage its emotional depression
By vindictively leveling
All attempts of any individual humans
To advance standards
As constituting new upshoots
Of the socially abhorred
Survival only
Of the fittest selfishness.

We are also aware
That other vast numbers of the «have nots»
Who are less or entirely
Unorganized politically
Have for so many milleniums

Suffered intensely
Both physically and metaphysically
Throughout their short-termed lives
That there has been
No suggestion in their experience
That life was meant to be
Anything other than a tortuous trial.

Ergo, they rationalized
That the only explanation
Of such a negative experience
That could be hopefully contemplated
Was that life on Earth constituted
A period of qualification
For an eternal life
Hereafter and elsewhere
And the greater the hardship endured
In the temporary or temporal life
The pleasanter the life hereafter.
And to all such life-hereafterers
Any attempt to ameliorate and improve
Their short life on Earth
Assumedly threatens
To dissipate and preclude
The eternal ecstasy
Of their life hereafter.

It also seems clear
That an increasing number of young,
Or young-minded people
Are beginning
To share my awareness
That total holocaust
Is now being ignorantly induced
By the world's preoccupation with
Exclusively political palliatives
Which are inherently shortsighted
And applicable only
To the emergency dramatized local aspects
Of the greater and unrecognized
Evolutionary problems
With which human life
Aboard our planet is beset —

Little humans
Preoccupied with the immediate needs
Of their physical regeneration
Have locked their zoom-lens focussing mechanism
On the close-ups only
Leaving it exclusively to their intuition
To remind them
Once and again in a surprised while
Of the vast long-distance focussing
Of evolutionary events.
And because evolution is apparently intent
Upon accomplishing humanity's total economic success,
Whenever society delays overlong
In adopting, producing, distributing, and using
In peaceful spontaneity,
The evolutionarily essential
Discoveries and inventions
Of its individual human pioneers
Evolution then forces the adoption
Of the technological innovations
Under the aegis of group fear of military defeat
And its defensive action taking
Whereas humanity reorganizes

The physical environment
In naturally permitted ways
Which turn energy as matter
Into a myriad of wheel mounted levers

And shunt energy
As radiation induced flows
To impinge upon those levers
Thereby to do the gamut of tasks
Conceived of by the human mind
As most productively efficient
And requisite to the immediate survival emergencies
Thereby inducing humanity's
Inadvertent acquisition
Of the subsequently and peacefully employable
Mass production capability.
T'was thus we progressively discovered for instance
That the copper mined, refined, and shaped into wire
In wartime

Strung upon poles to conduct energy from here to there
Does not lose its conductivity after the war
And it does not unrefine itself and return to the mine
But goes on through progressive meltings
To perform ever more exquisitely important functions
In ever more efficient ways
More messages per cross section of telephone wire
Progressively permitted and induced
By the environmental alterations and
Favorable conditions for research and further discovery
By the human mind
Which the productive tool-up regeneratively induced.

And thus there ensures a chain reaction
In the advancement of living standards
For ever more people
And the multiplication of their life spans
And the multiplication of their mobility
And the decrease of natural restraints
On so vast a scale as to augur
The swift advantaging of all humanity.
But humanity does not as yet realize
That the greater schemes
Of potential evolutionary success
Are entirely metaphysical and invisible —
To an omni-specializing and only
Physically emphatic world society.

For only one millionth
Of the vast ranges of the *electro-magnetic reality*
Is directly tunable by the human senses
Ergo, humanity as a whole is tactically blind
And is now as innocently helpless
As a newborn baby.
And its helplessness must be attended
By all those who heed their intuitive faculty
Thus to apprehend, then comprehend and anticipate
Evolution's inexorable transformation mandates
Through their inventive awareness
Of the design science opportunities
To rescue and advance all humanity
Into spontaneous adoption and realization
Of the eternal design revolution requirements

Of universal evolution
And humanity's living entrance thereby
Into a new relationship with universe
Involving vastly greater responsibility
Of all humanity
In respect to greater universe's
Event unfoldments.

Ships, sailors and the sea
Have been my greatest
Teachers and conditioners.

And it is not the least
Of such lessons
That Dinos Doxiadis
Finds it logical and propitious
To convene world around
Exploratory thinkers
To consider human settlements
From aboard a ship —
A mobile, organic city —
Plying swiftly the Aegean Sea
Therefrom to inspect
The city states of its islands and shores
Regenerated for five milleniums
By history's most rugged, yet artistic
And intellectually inspired sailors
The Greeks

For intuiting synergy
The Greeks initiated problem solving
By recourse to cosmology and cosmogony —
By proceeding from the whole to the part —
Lest they miss
The exquisite significance
Of each little part or event.

Thus did the Ionian Greeks
Commence mathematical pattern mensuration
Of their world, by geo-metry,
Within which synergetic advantage
The known sum —
One hundred and eighty angular degrees —
Of all the angles of any triangle,
Plus the known values
Of three of the triangles six parts
Provided the mathematical capability
To discover the original unknown values
Of the three remaining triangular parts.
Thus also synergetically did Democritus, —
Starting with the totally known complex
Of visible universe behaviors, —
Come to conceive schematically
Of the logical necessity for invisible phenomena
Which he named «atoms»
More than two milleniums in advance
Of non-synergetically plodding science's
Physical verification
Of the microcosmic stardom
Of those atoms.
If all humanity attains planetary success
Central to that attainment will be
The magnificently regenerative power
Of the Greeks' synergetic spontaneity of thought.