

UNIVERSAL REQUIREMENTS OF A DWELLING ADVANTAGE

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Teleologic Schedule

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Check list of the

Universal Design Requirements

of a Scientific Dwelling Facility,--

as a component function

of a new world encompassing, service industry,--

predesigned,

Rather than haphazardly evolved,--

and thus avoiding

a succession of short circuited

and overloaded burnouts

of premature, and incompetent

attempts to exploit the ultimate

and most important phase of industrialization,

to wit,

the direct application of highest potential of scientific advantage

toward advancement of world living standards--

to be accomplished by inauguration of a

comprehensive anticipatory technology

scientifically informed of the

probable variables and possible randoms--

this new volition to succeed

the era of "survival,"--

that is survival-despite,--

despite preponderant submission to ignorance,--

ignorance of future probabilities

and general behavior of nature--

which heretofore "survival," tolerated lethal opportunism,  
wherein the progressive deteriorations bred emergencies  
which called upon scientific ability  
to perform last minute miracles but  
only as a curative dispensation  
of morbid inertia.

First Inscribed 1927  
Revised 1930  
Revised 1938  
Latest Revision 1949

The Universal Design Requirements of a Scientific Dwelling Facility are that it accomplish comprehensive advantage for man over all primitive factors of energetic nature. The factors may be broadly classified in four parts as follows:

- I. Essentially Random and Subjective Phenomena
  - A. Exterior variables--factors of destructive or useful potential; of nakedly intolerable magnitudes, inescapably impinging
  - B. Interior variables--factors of destructive or useful potential; of nakedly intolerable magnitudes, inescapably impinging
  - C. Exterior constants of relative inertia forgotten through persistent obvio- sity and randomly re-encountered
- II. Essentially Routine and Subjective Phenomena--Internal to Dwelling--Predictably Periodic, Rhythmic
  - A. Inescapable functions of the organic processes, internal to dwelling and external to man
  - B. Inescapable functions of the organic processes, internal to dwelling and internal to man
  - C. Interior constants of relative inertia forgotten through persistent obvio- sity, and regularly rediscovered, e.g. furniture to be lifted with each housecleaning.
- III. Essentially Random and Objective Phenomena--Internal to Dwelling--Initiative, Spontaneously Intermittent--Teleologic
  - A. Investment of earned increments of lifetime for free will regeneration of the advantage of life over a priori environment. Realization of man's po- tentials as an individual
  - B. Implemented and insulated spontaneity of feedback acceleration-continuity of the self amplifying individual
- IV. Essentially Incisive and Routine Objective Phenomena--External to Dwelling-- Initiating a Sustainable Complex Continuity = Design Realization of All Men's Joint Potential--Teleologic
  - A. Investment of earned increments of technical advantage of the science- industry complex in design realization of the complex dwelling facility service
  - B. Implementation and insulation of synergetic feedback of higher order accru- ing to spontaneous group realizations of newly evolving potential

Note: That I and II above are subjective and defensive and exclusive and that III and IV are objective and offensive and inclusive.

Note: That I defines the outer ramparts and II the inner defenses while III repre- sents the inner initiative-taking and IV the full grown outer offensive-- conquest--contact.

Note: That this arrangement is geometrically teleologic, i.e. omnidirectionally convergent-divergent--propogative.

Expanded Expression of Four Broad Classifications of Universal Design Requirements for a Dwelling Facility. Original topic of broad classification not repeated and referred to only by number.

I. A. Structural, Mechanical or Chemical Interception and Control of Externally Impinging Factors, Either by Rejection, Reflection, Deflection

Through shunting, channelling, impounding, modulating and/or retiming of volumetric flows of variable external factors of nakedly-intolerable magnitudes

1. Immunization against aperiodic, energetic interferences,--externally impinging at intolerable magnitudes and heretofore classified as "cataclysmic,"--because exceeding the practical stress abilities of as yet available technology--However--(new era essence)

Since accomplishment of higher physio-chemical stress abilities in, for instance, supersonic flight and snorkle submarine, the stress abilities of technology in general now far exceed the predictable stresses of the hitherto cataclysmic structural interferences--the 180 m.p.h. velocity of antarctic hurricane or Pacific typhoon is now a relatively minor aeronautical velocity-of-interaction of designed structures. External impingements are classified in the order of frequency of probable occurrence and relative magnitudes.

a. "Cataclysmic"

Improbably annual, possibly "never," and least frequent, but of highest stress when occurring

- |                       |                                     |
|-----------------------|-------------------------------------|
| (1) earthquake        | (8) bombardment                     |
| (2) tornado           | (9) forest fire                     |
| (3) hurricane         | (10) tidal wave                     |
| (4) typhoon           | (11) plague                         |
| (5) avalanche         | (12) radio activity                 |
| (6) landslide         | (13) lethal gases                   |
| (7) volcanic eruption | (14) B.W. (bacteriological warfare) |

b. "Dangerous"

Probably annual, of borderline "disaster" magnitudes

- (1) gale
- (2) local fire
- (3) flood
- (4) pestilence
- (5) lightning
- (6) selfishness (self-preoccupation pursued until self loses its way and self-generates fear and spontaneous random surging, i.e. panic, the plural of which is mob outburst in unpremeditated wave synchronizations of the individually random components)
  - (a) vandals
  - (b) marauders
  - (c) meddlers
  - (d) politics
  - (e) fanaticism
  - (f) commercialism
  - (g) materialism

c. "Inclement"

Of high seasonal frequency and of low orders of stress or of naked intolerability

- |                  |                            |
|------------------|----------------------------|
| (1) fumes        | (8) heat                   |
| (2) hail         | (9) cold                   |
| (3) rain         | (10) epidemic              |
| (4) snow         | (11) vermin                |
| (5) dust         | (12) insects               |
| (6) electrolysis | (13) fungi                 |
| (7) oxidation    | (14) minor random missiles |

2. Rejection, or deflection for delayed or immediate use as
  - a. energy, admitted into direct work as, for instance, radiation or electronic reaction, or indirectly into work as, for instance, impounded wind (aeronautical) or water (hydraulic) power
    - (1) piped--for direct use
    - (2) wired--for direct use
    - (3) valved--for direct or delayed use
    - (4) stored--in cistern, tank or battery for delayed use
    - (5) stored--in thermal bank or compost bins, etc.

I. B. Dynamic Control of Internally Impinging Factors

1. Interception of and dispellment of the momentum trends of ignorance,-- through incorporation of experience informing natural design replacements, realized in physical principles
2. Interception and neutralization of bacteria by isolation of,--or by direct elimination
3. Elimination of physical fatigue
  - a. human robotism and drudgery by provision of adequate mechanics of technical advantage
4. Elimination of psychological fatigue (repression) by
  - a. removal of accident hazard through mechanical adequacy (don't proofing)
  - b. removal of arbitrary cellular limitations to permit free interaction of living functions
  - c. provision for selective privacy by push-button sound, sight and smell barriers surrounding any interior space
5. The elimination of emotional fatigue
  - a. factors stimulating nerve reactions to be automatically controlled in "neutral" until voluntarily brought into play by the occupant through:
6. Provision of mechanics for wide range in selection of means and degrees of sensible realization of the prosaic or harmonic phenomenon
  - a. visual
  - b. aural
  - c. tactile
  - d. olfactoral, i.e. taste and smell

I. C. Control by Anticipatory Design over Exterior Constants of Inertia Forgotten Through Persistent Obviosity and Only Randomly Re-encountered

1. Constants of environment, i.e. the mud forgotten between rains, odorous winds from remote sources, snowdrifting
2. Control devices installed for seasonal duration only requiring inordinate time investments
3. Chemical accumulations (oxides, sludges, fumes)
4. Biological accumulations
  - a. vegetation, composts, weed
  - b. insect, animal residues, nestings, general growth changes
5. Surprise emergencies of environmental complex unique to locality, i.e. possible water, oil, gas springs and seepage

- II. A. Provision for (Unselfconscious) (Spontaneous)  
Mechanical Performance of Inevitable Organic Routines  
of the Dwelling and Its Occupants  
with Minimum of Invested Attention or Effort
1. Fuelling of
    - a. house
    - b. occupant (eating) (metabolism)
  2. Realignment of house or occupants in  
sleep by allowed muscular, nerve and cellular realignment accomplished  
by designed elimination of known restrictive factors
  3. Refusing of house or occupants
    - a. internal, i.e. intestinal, etc.
    - b. external, i.e. bathing or pore cleansing
    - c. mental, i.e. elimination by empirical dynamics
    - d. circulatory: external,--atmospheric control; internal,-- as  
respiratory functions
- II. B. Control by Anticipatory Design over Interior Constants of Relative Inertia  
Forgotten by Fatigue Cloture of Feedback Sensibilities and Routinely Re-  
encountered--(Such as Heavy Furniture to be Moved about Daily for Cleanli-  
ness Operations, Storages to be Overhauled to Obtain the Tentatively Retained  
Devices of Possible or Infrequent Use)
1. By provision of adequate occupational-specialty storage means
  2. By home employment of travel equipment
  3. By dimensional reduction (e.g. of collections of large data to microfilm)

- III. A. Provision of Ready Mechanical Means, Complementing or Implementing, All Development Requirements of the Individual's Potential Growth Phenomena,-- Allowing the Facile, Scientifically Efficient, No-Energy-or-Time-Loss,-- Spontaneous Development of Self Disciplined Education, by Means of
1. Conning, i.e. selectively stimulated awareness of the momentary inter-actions of universal progressions accomplished by means of facile reference to vital data on
    - a. history
    - b. news
    - c. forecastscalls for a conning facility combining book and periodical library, radio, television facilities, systematically arranged incoming reports on
    - (1) current supply and demand conditions
    - (2) current dynamic conditions--weather--earthquakes--latest scientific research findings
    - (3) social dynamics--surfacing of commonweal problems of comprehensive readjustment to new potentials and concomitant obsolescence factors
    - (4) latest technical reference in
      - (a) texts
      - (b) movie documentation
      - (c) television university (soon evolving to increasing importance and reliability as the Autonomous Dwelling Facility becomes widely available)
  2. Adequate mechanics of personal articulation (prosaic or harmonic) for the spontaneous investment of the imagination--gestating intellectual--increments of experience,-- (teleology) which trend ever to satisfy the evolving needs--prosaic or harmonic--routine or plus. This category of original articulations also includes the necessity or crystallization of universal progress
    - a. instruments and tools of communication
      - (1) direct
      - (2) indirect
      - (3) aural
      - (4) visual
      - (5) tactile
        - (a) music, writing, drawing, measuring instruments
        - (b) wood, metal and chemical working tools
        - (c) typewriter
        - (d) wire-tape-and-disc-all-purpose-recorder-radio-phonograph
        - (e) easel
        - (f) photographic equipment--taking, developing, printing, projection
  3. Recreation--appropriate equipment to full physical development
  4. Procreation

III. B. Insulation, or Isolation, of the Instrumented Initiatives

III. C. Means of Displaying, Exposing, Experimenting and Measuring for Progressive Improvement of "Target" or "Trend to Target" or "Trend Following" Assumptions-of-Realization-Initiative-and-Articulation,--i.e. "Vital navigation" or "teleology" i.e. personal and social and cosmic feedback control. The comprehensive "frames,"--relative to which display, exposure, experiments, measurement and progressive dynamic trend assumptions may be referenced is FOURFOLD.

<u>A. "Objective Aspect"</u>	<u>B. "Subjective Aspect"</u>	<u>C. "Consolidated Intellectual Advantage, or 'Aids'"</u>
1. <u>Subvisible</u> <u>Microcosmic</u>	nuclear particles atoms molecules cells, genes	atomic charts, periodic, etc. spectrographic charts molecular models biological slides
2. <u>Geo-visible</u> <u>Geographical</u> <u>(Visible, near)</u> <u>Earth</u>	crystallographic biologic sub-surface surface envelope	globes, maps, geological strati- fication maps world and local physiological data spectrum charts
3. <u>Astro-visible</u> <u>Macrocosmic</u> <u>(Visible, remote)</u>	comets asteroids planets stars nebula	star globes star charts
4. <u>Supravisible</u> <u>Comprehensive</u> <u>Omni permeative</u>	abstracted principles gravity radiation number sets group behavior pheno- mena probability transformations inde- pendent of dimensions infinity	energetic geometry devices (vectorial, formative, trans- formative, number)



## Realization by Design

### A Priori Design Realization Assumptions

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Asking not

why, whither, nor whence

man-life?

But assuming

the accumulated experience evidences

that biological phenomena

in general

and man-life

in particular

function in universe

as the anti-entropic,--

the anti-random,--the simple and complex organic,--

the systematically convergent phases

of the comprehensive cycling

of omni energy transformations

and therefore industrialization

constitutes the comprehensive,--transformative expansion

of the man-life function in universe--

and therefore the realization that man-life's extension

into cosmic measurement

already billionsfolds

the sensory limits of integral faculties

presages a further successful amplification

of the man-life function in universe

and therefore  
that the regenerative ability of intellect  
in extension, acceleration, and expansion  
of the extra corporeal cosmic-functioning-stature  
of the man-life in universe  
is realizable  
in comprehensive design initiative  
relayed through industrialization

and therefore the function of comprehensive design  
is most naturally and effectively  
preoccupied with omni-abetment  
of the realization in full  
of the potentials of the "individual" complex,--  
an organic atomic nebula  
identified superficially as man--

man potential includes  
regeneratively improving potentials  
of sequential derivative orders  
of increasing advantage of the organic  
over the (random-entropic) chaos growths.

"Individual" man's highest potential  
may be realized in terms of full interaction  
of all men's potentials--  
ergo man's universal function trends  
to amplify first the pull potential of the individual,--  
but inherently multiplicative man-life.

Therefore

on first priority  
in design consideration  
is the full realization  
of individual potential  
in order to reach the second derivative,--  
full realization for all individuals.

Keys to design realization  
are the anthropological measurements,  
of the limiting factors  
of corporeal man,  
beyond which extra-corporeal articulation  
of the integral faculties  
may be accomplished by extension in principle  
through atomic-complex trains,  
and energetic transformations  
to cosmic stature advantage.

Universal Conditions of Design Realization

commence with the static and dynamic  
dimensions of man  
and his basic behavior involvements  
of which there exists a wealth of data.

<u>Typical</u>	Limited to Slow Change Integrally	Subject to Accelerating Change Latest Extra-Corporeal
How high can he grow?	8 ft.	1,200 ft.
How high can he jump?	6 ft.	70,000 ft.
How high can he reach?	9 ft.	750,000 ft.
How far can he see?	100,000,000 mi.	186,000 x 60 x 60 x 24 x 365 x 1 billion mi.
How far can he hear?	100 mi.	1,000,000,000 mi.
How far can he smell?	etc.	etc.
How long can he live?	etc.	etc.
Etc., etc., etc.		

All above figures schematic only, --for accurate figures see world almanacs.

#### IV. Realization

The whole program of realization is to be considered in the following order which breaks into two primary categories or phases: (1) the initial work to be undertaken by the individual prior to his engagement of the aid of associates and (2) original and initial work to be undertaken by the first group of associates. These two phases may be subdivided as follows:

##### A. Research and Development by Initiating Individual (Prior to Inauguration of Design Action and Development Action Involving Full-time Employment of Others).

Inauguration of a General Work pattern as a Natural Pattern Coinciding with Best Scientific Procedure to wit:

###### Preliminary

Initiation of diary and notebook

Initiation of photographic documentation

Initiation of tactical conferences

1. Comprehensive library study of accrued developments within the pertinent arts\*
  - a. past
  - b. contemporary
2. Listing therefrom of authorities available for further information
  - a. local, personal contact
  - b. remote, correspondence
3. Pursuant to information thus gained, calling at suggested local laboratories
  - a. university
  - b. industry
  - c. setting up of informative tests for first hand knowledge in own laboratory
4. First phase of design assumption
  - a. consideration of novel complex interaction unique to project
  - b. preferred apparatus from competitive field
  - c. design of appropriate flowsheets
5. Flowsheets submitted to
  - a. those competitive specialists who have proved helpful in step b and c
  - b. industrial producers of similar equipment and assemblies
  - c. make informative tests for closure of gaps supporting assumed theory
6. Submit specifications and drawings of general assembly and unique component parts for informative bids by manufacturers
  - a. second redesign of flowsheet based on available and suggested apparatus, price information, etc.
7. Prepare report consisting of diary of above supported by photographic documentation and collected literature--with trial balance conclusions of indicated economic advantage (which, if positive, will inaugurate Phase II)

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\*Pertinent arts to be studied by the initiating individual include:

1. Anthropological data
2. Energetic Geometry, the philosophy of mensuration and transformation, relative size
3. Theory of structural exploration
4. Theory of mechanical exploration
5. Thoery of chemical exploration
6. Energy as structure
7. Dwelling process as an "energy exchange"
8. Dwelling process as an "energy balance sheet"
9. Theory of structural complex
10. Theory of service complex
11. Theory of process complex
12. Theory of structural and mechanical logistics
13. Theory of complex resolution

IV. B. Design and Development Undertaking--Involving Plural Authorship Phase and Specialization of Full-time Associates  
Consideration of Relationship of Prototype to Industrial Complex by Constant Review of Principles of Solution Initially Selected as Appropriate to Assumptions

Adoption of Assumptions for Realization in Design of Pertinent Principles and Latest Technology Afforded

1. Comprehensive survey of whole sequence of operations from original undertaking to consumer synchronization
  - Realization strategy #1 by individual (Phase I)
  - Realization strategy #2 by associates (Phase II)
  - a. Physical tests in principle of the design assumptions' unique inclusions not evidenced in available data
  - b. General assembly drawings (schematic) providing primary assembly drawing schedule reference
  - c. General assembly assumption, small scale models and mockup full size
  - d. Primary assembly, sub-assembly and parts calculations (stress)
  - e. Trial balance of probable parts weights and direct manufacturing costs (approximately 3 times material costs; includes labor, supervision and inspection) and forecast of overall cost magnitudes, and curve plotting,--at various rates of production, ratioed to direct costs per part and "all other costs,"--i.e. "overhead," tool and plant "amortization," "contingenices," "profit"
  - f. "Freezing" of general assembly and its reference drawing
  - g. Drawing for first full size production prototype commences in general assembly, primary assembly, sub-assembly and parts
  - h. Budget of calculating and drawing time is set with tactical deadlines for each
  - i. Parts drawing and full size lofting and offset patterns
  - j. Prototype parts production on "soft tools" commences
  - k. Sub-assembly and primary assemblies replace "mockup" parts
  - l. Physical tests of parts and sub-assemblies with "obvious" corrections and "necessary" replacements (not "improvements" or "desirables" which must be deferred until second prototype is undertaken after all-comprehensive physical tests have been applied)
  - m. Photography of all parts and assemblies
  - n. Full assembly completed and inspected--cost appraised with estimates of possible "improvement" savings to be effected
  - o. Static load tests
  - p. Operational tests
  - q. Assembly and disassembly tests
  - r. Photography of all phases
  - s. Packaging and shipping tests
  - t. Estimates of savings to be effected by special powered field tools
  - u. Opinion testing
  - v. Final production "clean-up" prototype placed in formal calculation and drawing with engineering budgeted with deadlines
  - w. Parts cost scheduled by class "A" tools and time
  - x. Production tool layout fixed
  - y. Production tools ordered
  - z. Production dates set
  - a' Lofting and offsets produced of full-size-test "masters" and templates
  - b' Fabrication of special jigs and fixtures
  - c' Production materials ordered
  - d' Production tool-jig-fixture tune-up
  - e' Parts and assembly testing
  - f' Field operation scheduling
  - g' Field tools ordered
  - h' Distribution strategy in terms of initial logistic limitations
  - i' Field tests with special tools

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- j' Field tools ordered or placed in special design and fabrication
  - k' Test target area selected for first production
  - l' Production commences
  - m' First field assemblies with power tools
  - n' Maintenance service instituted and complaints
    - (1) alleviated
    - (2) analyzed
    - (3) change orders of parts instituted
  - o' Plans for "new" yearly model improvement run through all or previous steps--for original production
  - p' Cycle repeated
2. Production and distribution velocity assumptions
  3. Plotting the assumed progressive mass-production curves to determine basic velocities of new industry
  4. Tensioning by crystalline, pneumatic, hydraulic, magnetic means
  5. Compressioning by crystalline, pneumatic, hydraulic, magnetic means
  6. Consideration of manufacturer's basic production forms,--relative to proposed design components for determination of minimum steps, minimum tools, and minimum waste in realization
  7. Establishment of priority hierarchies of effort
  8. Time-and-energy-and-cost budgeting
  9. Assumption of industry responsibility for field practices, not only in mechanical and structural, but in economic design
  10. Designing for specific longevity of design appropriate to anticipated cycles of progressive obsolescence and replacement ability as ascertained from comprehensive economic trend curves
  11. Designing with "view to efficient screening of component chemicals for recirculated employment in later designs"
  12. Maxima and minima stated and realized performance requirements per unit of invested energy and experience and capital advantage of tools and structures employed and devised
  13. Logistics assumptions, compacted shipping considerations as original design requirement in
    - (a) nesting
    - (b) packaging
    - (c) compounded package weight
    - (d) relationship to carriers of all types
    - (e) field delivery
    - (f) field assembly
    - (g) field service and replacement
  14. Consideration of tool techniques
  15. Consideration of materials' availability
    - (a) at time of design
    - (b) in terms of world economic trends
    - (c) in terms of world potential
  16. Consideration of materials ratio per total design
  17. Elimination of special operator technique forming
  18. Elimination of novel special soft tool designing
  19. Numbers of
    - (a) types
    - (b) repeat parts
    - (c) sub-assemblies
    - (d) primary assemblies
  20. Numbers of forming operations
  21. Number of manufacturing tools by types
  22. Schedule of forming operations included on parts drawings
  23. Decimal fraction man hours per operation
  24. Designed-in over-all one-man-ability at every stage of operation
  25. Schedule of design routines and disciplines

26. Establish a "parts" inventory of "active" and "obsolete" drawings--  
from beginning
27. Establish a "parts" budget of "required" designs of "parts" for  
assemblies and major assembly and general assembly and molds
28. Drawing dimension standards
29. Establish a numbering system of controlled parts
30. Establish purchasing techniques, jig and fixture, lofting techniques

IV. C. Public Relations

To run concurrently with all phases of IV. B.

1. Education of public

Rule I: Never show 1/2 finished work

- a. General magnitude of product, production, distribution. But no  
particulars that will compromise latitude of scientific design and  
production philosophy of IV. B.
- b. Publicize the "facts," i.e. the number of steps before "consumer  
realization"
- c. Understate all advantage
- d. Never seek publicity
- e. Have prepared releases for publisher requests when "facts" ripe