HDTS: 5TH CITY

GLOBAL RESEARCH CENTRUM: CHICAGO

I. CONTEXTUAL LECTURE
REVISED December 6, 1978

LIVING ENVIRONMENT MODULE

OCTOBER 1978

Rational Objective: To provide a comprehensive picture of the complex elements which comprise the arena of urban living environment.

Existential Aim: To illuminate the profound function of environment transformation as the creation of signs of hope for the urban population.

INTRODUCTION: The challenge of transforming living environment in the urban neighborhood consists of creative visible signs of hope that allow the residents to tell a new story about their neighborhood as a place where "life is good," thereby replacing transience and neglect with stability and human care.

I	Community Plan		Zone Demonstration		Environment Control		Beautification Plan	
COMMUNITY DESIGN	Community Forum	Scale Model	Community Plaza	Parking Areas	Traffic Control	Demolition Planning	Public Landscape	Community Entrances
	Consultant Planner	Design Board	Pedestrian Sidewalks	Road Network	Codes Reinforcemt.	Wasteland Reformulatn.	Residential Yards	Exterior Decor
II	Demonstration Sign		Housing Development		Construction Process		Property Management	
DOMESTIC HOUSING	"Block" Demonstratn	Neighborhood Identity	Master Plan	Special Housing	Contractor Relations	Code Conformity	Local Corporation	Property Maintenance
	Model Apartment	Replicable House	Property Improvements	Local Ownership/ Control	Cost Estimating	Comprehensv Funding	Financial Administratn	Community Relations
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COMMUNITY FACILITIES	Recreation Facility	Agency Offices	Processing Plant	Equipment Pool	Bank/Credit Union	Domestic Services	Public Schools	Health Facility
	Public Assembly	Leadership Room	Manufcturing Buildings	Multi-Services Facilities	Retail Stores	Commercial School	Religious Institutions	Social Nodes
IV	Communication Systems		Public Safety		Municipal Services		Physical Maintenance	
ESSENTIAL SERVICES	Post Office	Information Media	Legal Aid	Police Protection	Urban Sanitation	Freight Service	Home Repairs	Water Supply
	Emergency Transport	Public Telephones	Public Lighting	Fire Department	Public Transport.	Energy Delivery	Snow/Water Removal	Auto Repair

HDTS: 5TH CITY

LIVING ENVIRONMENT MODULE

I. CONTEXTUAL LECTURE

GLOBAL RESEARCH CENTRUM: CHICAGO

OCTOBER 1978

Introduction:

I COMMUNITY DESIGN	COMMUNITY PLAN	ZONE DEMONSTRATION	ENVIRONMENT CONTROL	BEAUTIFICATION PLAN
II DOMESTIC HOUSING	DEMONSTRATION DESIGN	HOUSING DEVELOPMENT	CONSTRUCTION PROCESS	PROPERTY MANAGEMENT
III COMMUNITY FACILITIES	COMMUNITY CENTER	INDUSTRIAL BUILDINGS	COMMERCIAL MALL	CULTURAL NODES
IV ESSENTIAL SERVICES	COMMUNICATION SYSTEMS	PUBLIC SAFETY	MUNICIPAL SERVICES	PHYSICAL MAINTENANCE

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LIVING ENVIRONMENT MODULE

II. FIELD SEMINAR
TACTICAL PLOT

GLOBAL RESEARCH CENTRUM: CHICAGO

OCTOBER 1978

LIVING ENVIRONMENT TACTICS:

3 Building Materials
4 Repair Equipment
6 Finance Clinic
15 Development Capital
19 Construction Teams
20 Task Forces
23 Local Managers
35 Housing Apprenticeship
68 Transport Backup
69 Minibus Service
70 Cooperative Security
76 Architect Enlistment
89 Recreation Center
102 Iron Man Plaza
108 Community Clean-ups
109 Business Redecoration
110 Lot Clean-up
111 Recycling Projects
112 Trash Cans
113 City Sanitation
114 Community Art
115 Greenery Campaign
117 Work Projects
118 Property Analysis
119 40 Block Plan
120 Planning Commission
121 Residential Rehabilitation
122 Recreation Sites
123 Business Center
124 Landholding Agency
125 Inspection Service
126 Repair Consultants
127 Repair Demonstration
128 Referral Service
129 Periodic Reports
130 Preventive Repairs
131 Automotive Center
136 Assembly Plant
139 Factory Facility
140 Construction Company

LIVING ENVIRONMENT PROGRAMS

I	Community Plan	Zone Demonstration	Environment Control	Beautification Plan
COMMUNITY DESIGN				
II	Demonstration Design	Housing Development	Construction Process	Property Management
DOMESTIC HOUSING				
III	Community Center	Industrial Buildings	Commercial Mall	Cultural Nodes
COMMUNITY FACILITIES				
IV	Communication Systems	Public Safety	Municipal Services	Physical Maintenance
ESSENTIAL SERVICES				

HDTS: 5TH CITY

LIVING ENVIRONMENT MODULE

SESSION II: FIELD SEMINAR

GLOBAL RESEARCH CENTRUM: CHI. REVISED December 6, 1978

OCTOBER 1978

Rational Objective: To familiarize the group with the sub-tactics intended to transform the living environment of 5th City, and to illuminate their implementation through a guided tour of the community.	Existential Aim: For participants to experience the challenge and possibility of transforming space into a visible sign of hope for human living conditions.

INTRODUCTION: Song, introduction of 5th Citizens. Reflection on the contextual lecture: (1) What do you remember from the lecture? (2) What activities have you done in your community that involve the living environment?

MOVEMENTS

I

TACTICAL CONTEXT

1. Pass out 5th City documents and walk through the charts:
   - Vision: What do you notice as the vision of 5th citizens? What would be some of your hopes and dreams for this community?
   - Contradiction: What do you notice is blocking this community in the arena of living environment?
   - Proposal: What are the living environment proposals here? What do you think are the advantages of this strategy in 5th City?
   - Tactics: These are the specific actions to accomplish the proposals. What questions do you have about this process?
2. Pass out the Living Environment sub-tactics list/plotting sheet and draw group's attention to them. Hold on to this sheet for later work.
3. Invite 5th Citizens to make spot reports on tactical progress in 5th City.

II

TOUR

1. Pass out maps of 5th City for use as a guide and for notation.
2. Divide group into 4 environment focus sub-groups: (1) housing, (2) facilities, (3) space beautification, (4) essential services. Everyone observe especially: (a) where signs of renewal could be quickly done, (b) where they would create a signal demonstration in their focus area, (c) how derelect space could be used, (d) where people gather most, (e) what repairs could most immediately be done, (f) how you would picture the long-range rehabilitation of the neighborhood.
3. Tour the community in four groups, concentrating on stakes that will be the subject of the afternoon workshop. Have local residents explain the project work during the tour.

III

REFLECTION

Whole group gathers back in the assembly room for reflection on tour:
- What impressed you about what is already done in 5th City?
- What are some other steps you would take (other tactics)? List them on the back of your tactics plotting sheet.
- As you look at the list of sub-tactics (old and new), where do they seem to fit in the program chart? Plot them by numbers.
- What do you notice about how they are falling in the chart? Where does the weight seem to be? Where are tactics missing? What surprises you?
- What contradictions are handled by these tactics? How do you suspect the vision of the local residents is realized through these tactics?
- What does the plot tell us about the next moves in 5th City?

(During lunch the old and new tactics are grouped in the 4 component arenas for the afternoon workshop and placed on a large sheet of butcher paper.)

CONCLUSION: Brief conversation on tactical learnings: (1) What things you saw in 5th City have made a lasting impression on you? (2) What surprised, intrigued you? (3) At what point did you sense yourself becoming a part of this community today? (4) What are the values you would hold in doing living environment? (5) What is the human factor in living environment? (6) What advice would you give 5th citizens re:futur?

NOTE: Check with newspaper community editor for names of successful block clubs.

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SESSION III: TECHNICAL ENCOUNTER

GLOBAL RESEARCH CENTRUM: CHI. VISIT: SOUTHSIDE REHAB BLOCK — OCTOBER 1978

Rational Objective:	Existential Aim:
Students visit a street that has been successfully redone.	To have the students experience the hope and possibility that come from seeing a successful project.

INTRODUCTION:

MOVEMENTS

I

CONTEXT

Before going to the site, give a brief history of the neighborhood and project.

II

SITE VISIT

Talk with the residents who experienced the change in their street:

1. How much did it cost?
2. Where did the money come from?
3. How long has the project been going on?
4. Who owns the property?
5. How is it managed?
6. What were the steps taken to do the project?

III

ART FORM CONVERSATION (After return to school)

1. What struck you when you first saw the street?
2. Colors, shapes, activities saw?
3. What surprised you?
4. What did you expect to see and didn't?
5. What would you change?
6. What did that street have that every neighborhood needs?
7. What would it take to get a project like that started?
8. Why is it important to have a street like that to live on?

CONCLUSION:

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IV. IMPLEMENTATION LECTURE

REVISED December 6, 1978

LIVING ENVIRONMENT MODULE

OCTOBER, 1978

Rational Objective: Gain a comprehensive picture of how to effectively alter living environment.

Existential Aim: Experience the power of having your living space under your own (local) control and responsibility.

Introduction: Living Environment is the key program arena for breaking loose the stake care dynamic in a local community. Rehearse principles of community reformulation: (1) delimited geographical area, (2) deal with all the problems simultaneously, (3) work with the depth human problem, (4) symbols are key.

I PROGRAM DEVELOPMENT KEYS	Community Design Program		Domestic Housing Program		Community Facilities Program		Essential Services Program	
	Community Forum	Central Plaza	Demonstratn Sign	Local Ownership	Leadership Room	Social Node	Urban Sanitation	Public Safety
	Scale Model	Public Landscaping	Property Maintenance	Comprehensve Funding	Assembly Space	Multi-Services Facility	Water Supply	Information Media
II PRACTICAL ACTIONAL SCHEMES	Community Beautification Campaign		Space Design Campaign		Housing Development Campaign		Community Services Campaign	
	Seasonal Campaigns	Ongoing Care	Comprehensive Plan	Phased Implementation	Signal Rehab	Development & Finance	Local Initiative	Services Handbook
	Special Workdays	Individual Responsibilities	Visual Displays	Visible Transformation	Proposal Packaging	Management Operation	City Services	Quarterly Campaigns
III GUILD/STAKE TASK FORCE FUNCTION	Community Planning Meetings		Scheduled Work Days		Weekly Maintenance System		Community-wide Management	
	Local Traditions	Consensus Building	One-day Events	Local Resources	Task Checklist	Stake unit Volunteers	Housing Management Team	Property Inspection Team
	Neighborhood Leadership	Symbol Creation	Total Participatn.	Complete Task	Tool Closet	Informal Checking	Environment Maintenance Team	Building Maintenance Team
IV AUXILIARY SUPPORT ROLE	Initiate Visual Signs		Catalyze Community Engagement		Secure Comprehensive Resources		Establish Civil Relations	
	Exemplary Residence	Contageous Events	Corporate Action	Walking Stakes	Agency Cooperation	Donated Materials	Honor Structures	Demonstrate Self-reliance
	Model Appearance	Report Victories	Visibly Working	Winning Focus	Technical Assistance	Pri/pub Support	Non-competitive Image	Steadfast Advocacy

HDTS: 5TH CITY

LIVING ENVIRONMENT MODULE

SESSION V: RESOURCE PANEL
REVISED December 6, 1978

GLOBAL RESEARCH CENTRUM: CHICAGO

OCTOBER 1978

Rational Objective: Build a delivery system for experience and expertise through creation of a panel linking society's resources with local needs.	Existential Aim: Group experience the direct access to society's resources and experience the collegiality of those who care at every level of society.

INTRODUCTION: Moderator leads a song to gather the group back together and then introduces the panelists (who are seated across the front of the room)

MOVEMENTS

I PREPARATION

Moderator leads an invitatory conversation with the participants:

- How many people come from a community of under 1500 people? Over 100,000? In between?
- What landmark do you remember most in the community you lived in as a youth? What was the beauty spot? Most impressive building?
- What do you remember about the mailman, milkman, policeman?
- Was your house a single-family dwelling? Apartment building? Duplex?
- What is your picture of what a human living environment should look like?
- What is your most pressing concern in regard to your present living environment?

SUGGESTED PANELISTS:

HUD Regional Dir. (Woody Kee)
Architect (Sheldon Hill)
Real Estate Agent (Wold or Travis)
Technical Assistance Off.
Contractor (Victor Axlerod
Lawyer (Tom Volini)
Dept. Human Services
West Side Dev. Corp. (Ed Allen)
Developer (G.H.Wang)
5th Citizen (Carrie Neff, Bill Glover)

II PANEL

Moderator calls upon the panelists to say a word about what they do, their chief concern about local living environment and what resources they can make available to a local community like 5th City. About 7 minutes each.

III GROUP-PANEL DIALOGUE

1. Moderator calls upon participants to ask questions of the panelists.
2. Moderator invites panelists to ask a question of the group.
3. Moderator sums up the panel discussion and calls for closing insights from the group on this event.

CONCLUSION: Moderator thanks the panelists and announces the next section.

HDTS: 5TH CITY

LIVING ENVIRONMENT MODULE

SESSION VI: PRACTICAL WORKSHOP

REVISED December 6, 1978

GLOBAL RESEARCH CENTRUM: CHICAGO

OCTOBER 1978

Rational Objective: To pull together the practical wisdom and resources related to Living Environment and apply them to a concrete planning exercise.	Existential Aim: To experience the ability to put actual form on this programmatic arena through corporately building a scheme for the physical transformation of a portion of 5th City.

INTRODUCTION: The task of transforming living environment involves: (1) creating signposts that draw forth community pride, (2) facilitating activities that manifest a new liveliness in the community, (3) claiming new or unused space, (4) transforming misused or derelect space, (5) focusing space with special nodes or symbols.

MOVEMENTS

I

PREPARATION

1. Examine the work from the morning field seminar, checking the grouping of the sub-tactics under their tactical component arenas and adding any necessary sub-tactics.
2. Make sure everyone is assigned to a component arena. Copy the sub-tactics from the board on to your component arena column (see worksheet).
3. Explain the objective of the workshop to create a comprehensive environmental development plan for a designated portion of 5th City, color-coded on a wall map. Supporting maneuver paragraphs and a preliminary financial resource study will also be produced.

II

COMPONENT DESIGNS

1. Divide into the four component arenas to create the 3-part product in each arena for a particular section of 5th City.
2. Before sub-dividing into the three parts, examine the current 5th City project plans in your component arena for the designated portion of the community, and further group the sub-tactics in your component column.
3. Go back and visit the designated area of 5th City if necessary.
4. Divide into the three units per component arena and follow instructions on the worksheet (attached).

III

REPORTS AND REFLECTION

1. Color-coded map- ask group what strikes them about the map. Have someone walk us down the street and describe the results of the transformation. Where does group have questions, concerns? What will impact visitors the most? What is the most dramatic sign of change?
2. Maneuvers- have each component arena read their best maneuver paragraph and invite group comments on it. What is going to be the most difficult hurdle to overcome? Where does the maneuver need sharpening?
3. Financial study- have some elements of the financial study read. What is going to be the easiest one to attain? Hardest? What is it going to take to get that financing?
4. General- What did we do today? What's the victory in 5th City today?

CONCLUSION: Affirm the work of the day. It demonstrates the capability of local people like ourselves to sculpt the face of the new human community.

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LIVING ENVIRONMENT MODULE

EXAMPLES OF TRANSFORMATION TACTICS

SIGNPOSTS	ACTIVITIES	CLAIMING NEW SPACE	TRANSFORMING MISUSED SPACE	FOCUSING SPACE
Signs on buildings telling what activitygoes on inside	Plaza	Signs of renewal like new house numbers, painted shutters & doors	having a block of houses keep front yartds clean	creating node of activities
Victory signs telling what we have done	Sports field	A symbol like the grid or a particular color on every available space used by HDP	window boxes	community center
"Future victory" signs	Uniforms	Making one section of a roadway a well-kept maintained deomstr.	cleaning up junk area	parks with paths leading to & from
Stake signs	Festivals	Keeping designated pathways & sewers clean	Clearing land, tearing down fences, repairing broken down items	water tower with mural or sign
Street signs	Work days	Demol house	getting rid of ugly areas like cesspools, trash heaps	industrial complex
Bulletin boards	Park events		building refuse containers	Iron man statue or similar symbol in central location by public road
Village map	Buildings that are used for activities made into a demonstr. of a clean, cared for space		using unused land or buildings	
Future village design	Weekly calendar in store windows		lights in dark areas	
land use map				
Murals				
Program chart				

LIVING ENVIRONMENT MODULE
IMPLEMENTARY WORKSHOP
December 2, 1978
Ivy City, Washington, D.C.
(Adaptable to 5th City)

The objective of this workshop is to create a comprehensive community ENVIRONMENTAL DEVELOPMENT PLAN, color-coded on a wall map as part of a process toward the construction of a 3-dimensional architectural model of Ivy City. Supporting maneuver paragraphs and a preliminary financial resource study will also be produced.

PROCEDURES:

1. Examine the work from the morning field seminar, checking the grouping of the sub-tactics under their tactical component arenas and adding any necessary sub-tactics.

2. Make sure everyone is assigned to a component arena. Copy the sub-tactics from the board on to your component arena column (below):

DOMESTIC HOUSING	COMMUNITY FACILITIES	SPACE BEAUTIFICATION	ESSENTIAL SERVICES
Rehab Housing New Housing Land acquisition Demonstration Apartment Mini-zone Dev.	Industry sites Commercial Mall Community Center School Facilities Health Center Church Buildings	Community Parks Play Lots Lanscaping Plan Community Plaza Demolition Sites Community Gardens	Sidewalk Repairs Public Telephones Junk Pick-up Points Lighting Improvements Water/Sanitary Up-grading Parking Provision

S:

3. Divide into the four component arenas to create the 3-part product in each arena as follows:

Part A: Color-coded Map	Part B: Maneuver Paragraphs	Part C: Financial Resource Study
1. Decide how to use color-coding to designate existing and proposed development. 2. Cut out sub-tactical development sections from construction paper and paste on wall map in appropriate locations. 3. Identify sections with markings agreed upon from checking with the other component groups.	1. Title the sub-tactic groupings within your component arena. 2. Write 4-point maneuver paragraph for each sub-tactic grouping as follows: - Identification of sub-tactics. - Victory by April 1. - Present advantage. - Steps to take for implementation. 3. Create a maneuver chart by coordinating with the other component groups.	1. List the things in your component arena that will need financial support. 2. For each need list finance source, estimated amount, contacts and next steps. 3. Use the form provided below. Check your study with the other component groups to get a composite chart.

Before sub-dividing into the three parts examine the current Ivy City project plans in your component arena and further group the sub-tactics in your component column.

FINANCIAL RESOURCE STUDY				
Needs	Amount	Sources	Contacts	Next Steps

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	Emergency Transport	Public Telephones	Public Lighting	Fire Department	Public Transport.	Energy Delivery	Snow/Water Removal	Auto Repair

Superseded

LIVING ENVIRONMENT MODULE

Implementation Workshop Worksheet

WHY		WHAT		HOW
Contradiction	New Story	Arena	Tactical Action	Implementation
In order to address the mindset which believes:	Thereby transforming the residents' understanding that:	In the arena of	We recommend	Which can be done by
We're not important enough to announce to the public	We are doing something that needs to be heard about!	Signposts		
My home & work are the only places I really engage	Everybody is doing something dynamic in this community!	Activities		
We have no control over how space is used in this community	We can decide how space is shaped & used	Claiming New Space		
The government won't care for us and we can't	We <u>can</u> deal with our own problems	Transforming misused space		
This community is fragmented & has no purpose in being this community	This is our neighborhood and we're proud of it	Focusing Space		

THE LIVING ENVIRONMENT

REFERENCE MANUAL

A compendium of practical models and tools for renewing the space and humanizing the environment of local community.

INTRODUCTION

-- Have you ever spent a glorious workday renovating a house in the community only to discover two weeks later that the scheduled demolition would begin in one more week?

-- When was the last time you spent $3.00 in gasoline to make a special trip to purchase the forgotten 30¢ part which was blocking completion of a job?

Task Force Q: Living Environment identified four major issues blocking momentum in the human development projects task of transforming the physical space of communities:

1. There was no comprehensive screen for the pre-consult gathering of data on the living environment or the post-consult translation of the operating vision and the tactical system into a unified physical design of the transformed community.
2. There needed to be a method which required implementation by transrationally clustering the tactics and programs which was simple enough to be used on a regular basis.
3. The block to actualization of hard miracles was discerned to be the lack of understanding of how major construction occurs at the local level.
4. To ensure that the auxiliary could leave in two years a project which would sustain its own momentum, a method needed to be developed for involving, training, and motivating people in the community construction force or builders guild.

This handbook is intended as a practical guide toward accelerating the momentum in the physical transformation of the living environment in a human development project. It is divided into four sections -- comprehensive plan, implementation scheme, local construction, and builders guild. The focus of each section is on the arenas in which human development projects are most commonly blocked. In comprehensive plan the preparation of the base map and the land use projections are the keys to unraveling the complexity of issues in the 27 elements of the comprehensive plan triangle. The practical phasing of hard and soft miracles implement tactics which deal with the community's contradiction in the arena of space. Scheduling, estimating, and materials handling procedures allow rapid movement in local construction miracles. The practical experience of the Maliwada Builders Guild provides clues for the organization, motivation, and acceleration of the construction workforce in any local community.

TABLE OF CONTENTS

A. THE COMPREHENSIVE PLAN COMPONENTS

1. THE RESOURCE DEVELOPMENT SENTENCES

ECONOMIC BASE

1. AGRICULTURAL LAND - Agricultural land includes the allocation of land to farming, determination of crops, development of family gardens, necessary machinery and equipment, seed and fertilizer procurement, marketing, and on-going agricultural research and experimentation.
2. INDUSTRIAL PARK - Industrial park refers to the amount of land needed for present and future industry, necessary capital improvements to the land (road access, parking, warehousing, access to freight routes, location relative to residential areas, sanitation, water, buildings), and projections for future industrial expansion.
3. COMMERCIAL DEVELOPMENT - Commercial development includes a market analysis of the trade area to determine viable business possibilities and trade area needs. It includes alternatives for new businesses and the expansion of existing businesses, an examination of current business operations, facilities, joint business ventures, and possible financing and refinancing schemes.

PROPERTY EVALUATION

4. PROPERTY MAP - Property map includes an accurate determination of and mapping of property lines, updating ownership records, and assessment of property exchange mechanisms, and a review of all existing property regulations.
5. PROPERTY ASSESSMENT - Property assessment points to updated and reassessed evaluations of property values for each piece of property in town and its current ownership. Determination should be made concerning the need for (if any) and type of tax base based on property value.
6. ZONING ORDINANCES - Zoning ordinances refers to any regulations placed on property regarding its uses in conformance with the consensed on land-use projection (#20 following), and should include enforcement measures and appellate procedures.

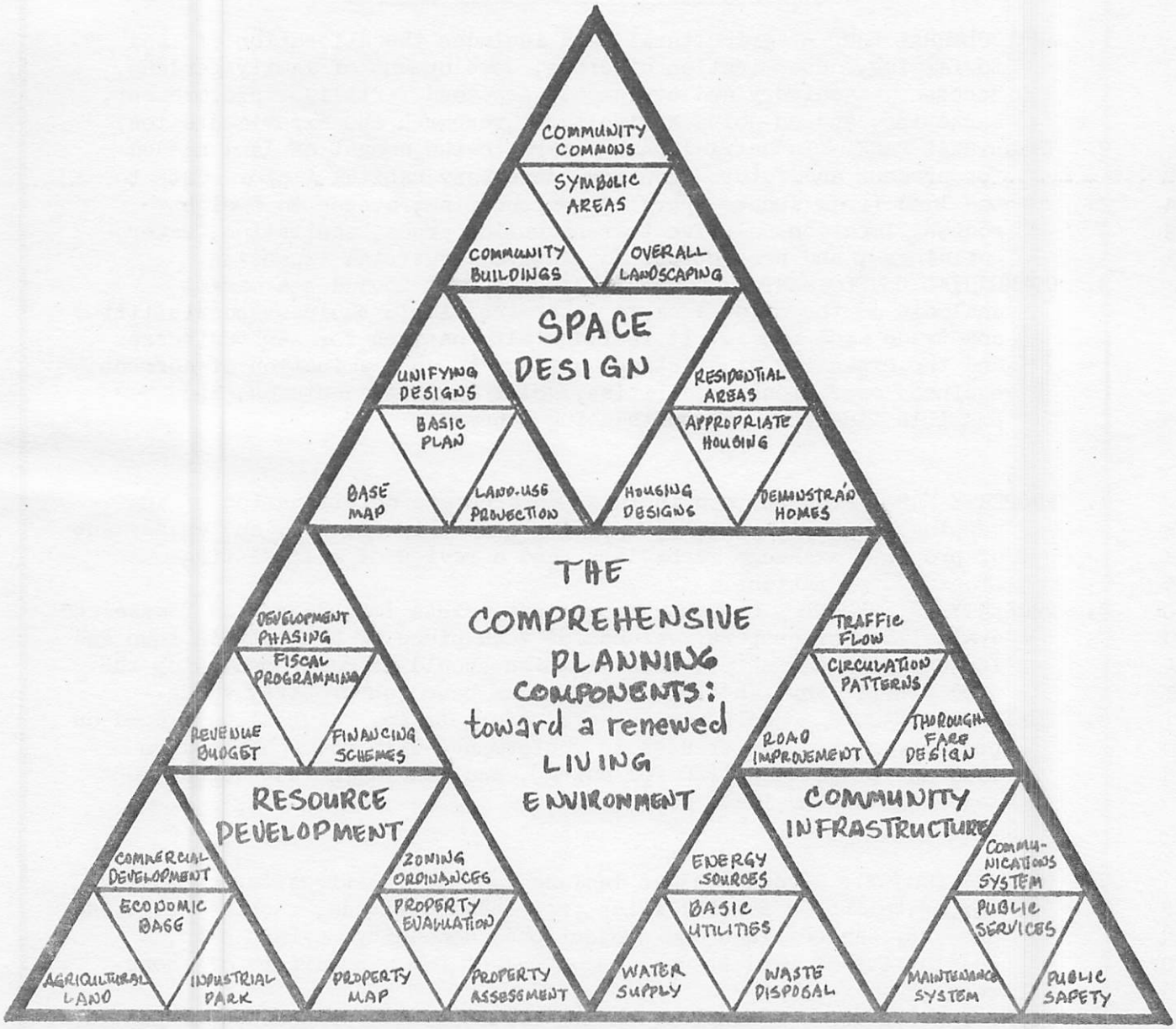
FISCAL PROGRAMMING

7. REVENUE BUDGET - Revenue budget includes all alternatives for community corporate income possibilities from local citizens, such as sales and property tax ceilings and projections, community savings plan, feasibility of band issues, and a budget for expenditure of those revenues.
8. FINANCING SCHEMES - Financing schemes refers to all proposals for public and private funding to be injected into the community, capital investments of businesses and corporations, and any local community association that would generate corporate income.
9. DEVELOPMENT PHASING - Development phasing accounts for all immediate and long-term development plans, including which economic ventures are dependent on others, which catalyze others, which can be regional in nature, and a timeline for implementation of each and potential capitalization schemes for each.

ICA
Global Research Assembly

PLATE 1:
THE PLANNING COMPONENTS TRIANGLE

Chicago



COMPREHENSIVE PLAN

Space is the revolutionary edge of our work in Human Developement Projects. Space alterations symbolize social change thereby guaranteeing and guarding interior transformations. In the corporate planning, it is essential to aim spatial transformations at the one thing that is blocking the momentum of the communtiy. The key to motivity in terms of space changes, is the phasing of consistent workday soft miracle events, with monthly hard construction miracles. Transforming background space is key to long term imaginal shifts; transforming focal space is key to motivity breaklooses. The twenty-seven triangles represent a comprehensive checklist for total renewal of the living environment of any community.

2. THE COMMUNITY INFRASTRUCTURE SENTENCES

BASIC UTILITIES

10. WATER SUPPLY - Water supply for the community includes source, delivery system, purification techniques and measures, and maintenance.

11. WASTE DISPOSAL - Waste disposal refers to garbage and sewage waste disposal, recycling and reclamation of waste projects, supplying the equipment required, and on-going maintenance and disposal procedures.

12. ENERGY SOURCES - Energy sources refers to existing and potential energy forms, cost analysis and projection of each, a determination of the most effective energy form for the community, and specific plans for its generation and distribution with the community, e.g. electricity, gas, water, coal, wood, wind, solar, etc.

PUBLIC SERVICES

13. MAINTENANCE SYSTEMS - Maintenance systems points to the review and upgrading of street maintenance, upkeep of public or community buildings and land, equipment upkeep and repairs, personnel needs, personnel policies, salaries, and hiring practices.

14. PUBLIC SAFETY - Public safety includes fire protection, individual and corporate security, emergency health procedures, establishment of building codes and code enforcement systems, and the elimination of safety hazards. Alarm systems should be considered.

15. COMMUNICATIONS SYSTEMS - Communications systems refers to establishing effective intra- and inter- community communications, including methods such as telephones, radio, television, newspapers, telegraph, bulletin boards, and public transportation.

CIRCULATION

16. ROAD IMPROVEMENT - Road improvement refers to ensuring that existing roads are adequate for traffic needs, including future projections. Issues involve appropriate road materials, road foundations, ease of repair, method of repair, drainage, and footpaths adjoining roads.

17. THOROUGHFARE DESIGN - Thoroughfare design accounts for highways and transportation linkages to neighboring communities and commercial centers, locations of future streets and highways, and size and types of thoroughfares relative to the amount and types of vehicles expected.

18. TRAFFIC FLOW - Traffic flow deals with an analysis of current traffic patterns, a projection of future patterns, and a determination as to future patterns required. Recommendations should be made concerning future relocation of streets, directions of street flow, street width, and any necessary traffic control measures with consideration being given to the dividing and linking function of roads on the affected geography.

3. THE SPACE DESIGN SENTENCES

BASIC PLAN

19. BASE MAP - Base map is a map of the community drawn to scale, usually from an aerial photograph (standard scale in the U.S. for the aerial photo is one inch equals two hundred feet). The base map includes all buildings and overlays showing building use and building conditions. (Aerial photos of any community in the U.S. are available from the Agricultural Stabilization and Conservation Service).

20. LAND-USE PROJECTION - Land-use projection is a map drawn from the base map to plot the future locations of streets, highways, commercial, industrial, residential, recreational, and commons areas, sanitation facilities, water services, health center, schools, community center, parks, and town limits. Amounts of space to be allocated to each should be reflected on the plan.

21. UNIFYING DESIGNS - Unifying designs deal with the issue of the continuity of design of all open space, parks buildings, streets, street signs, traffic signs, storefront designs and business signs, and landscaping. A scale model should be contructed of the land-use projection.

APPROPRIATE HOUSING

22. HOUSING DESIGNS - Housing Designs include types of housing needed (multi-family, duplex, single units, cluster housing), recommendations and designs for housing rehabilitation, establishment of housing standards, appropriate local materials to be used in construction, and cost projections.

23. DEMONSTRATION HOMES - Demonstration homes includes scale models for homes and the actual construction of one or more demonstration homes in the community. The homes built should demonstrate available options, operational financial arrangements, and home renovation (if applicable). Cost efficiency relative to energy and energy conservation should be demonstrated as well.

24. RESIDENTIAL AREAS - Residential areas should be designed to consider physical arrangements of homes, open spaces, street layouts, parks, mini-parks, footpaths, and landscaping. Property size, number of homes needed and projected, and types of dwellings should be factored into the design.

SYMBOLIC AREAS

25. COMMUNITY BUILDINGS - Community buildings includes schools, community center, health clinic, recreational facilities, municipal buildings, fire facilities, and any necessary office space. Issues to be considered are location, design, and functionality.

26. OVERALL LANDSCAPING - Overall landscaping would design the landscaping for the entire community, to include public and private lands, street signs, entrances and exits of the community, designs, locations, and landscaping of parks and playgrounds.

27. COMMUNITY COMMONS - The community commons is the physical focus of the community, usually near its center, and incorporates businesses, community buildings, and municipal buildings. It functions as the main community node in which the community meets informally and formally to rehearse its unity.

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B. THE 20 QUESTIONS FOR SPACE ANALYSIS

ANALYZING THE COMMUNITY

1. How do the main nodes and pathways reveal the underlying current of community relationships already present?
2. What is the common space and/or neutral turf of the community and how is it maintained?
3. What economic and social relationships and patterns are revealed in the current space design?
4. What is the key block apparent in the present space design? Where is the community already dealing with that key block?
5. How are the buildings and the space design contributing to the major block in the life of the community?
6. What does the grid and the document have to say about the state of the community?

PLANNING THE DESIGN

7. When you first moved into the community or first saw it, what caught your attention about space that needed to be dealt with immediately?
8. If I was moving into this community, what would I want done to this community in relationship to my famity?
9. Where do you want the community's attention to be centered?
10. What new elements in the space design will enhance the corporateness of the community?
11. What are the government regulations, ecological considerations, as well as local/national images that need to be taken into consideration by the local grassroots in the overall design?
12. How can we quickly determine land ownership and its various shades of meaning in the community?
13. What will the rate of social change be in the community? How will the community space design handle this social change?
14. What would it mean to do human development physically in your particularly unique, historical and environmental setting?

ACCOMPLISHING THE TASK

15. How is it that the people can decide to deal with space in a new way and see construction priorities for their community?
16. What major construction will impact the key block in the community?
17. Which designs will maximize growth and quality in the future?
18. What is the easiest and cheapest way to build according to the necessary standards?
19. How can everything essential and necessary be done in two year's time?
20. From what structures will you receive your funding and what is your plan for quick and comprehensive funding from that structure?

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THE 16 RENEWAL ARENAS CHART

July 1977
PLATE 2

COMPREHENSIVE PLAN	COMMUNITY CONSENSUS	LOCAL ENGAGEMENT	BACK-UP SYSTEMS
COMMUNITY DESIGN	SYMBOLIC SPACE	COMMUNITY RESOURCES	BACKGROUND RESEARCH
CONSTRUCTION PHASING	VISUAL AIDS	COMMUNITY TRADITIONS	LAND OWNERSHIP
LOCAL LEADERSHIP	MOTIVATING CLUES	COMMUNITY FORCES	ESTABLISHMENT AUTHORIZATION
AUXILIARY ROLE	CREATING UNITY	CORPORATENESS SIGNS	PRACTICAL EXPERTISE

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THE GUIDELINES FOR COMPREHENSIVE PLANNING

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Permanent changes in community space can only begin after a comprenensive, rational, locally concensed space design is completed. Because space transformations are visible, their appearance becomes the guarantee that human development is happening in the community. The rapidity and the rhythm of construction is a physical sign of escalating momentum. Involving local leadership from the start in community design issues predicts the total involvement of the community later in the actual construction phases. In this way the community comes alive internally as it sees its insights on community design appear.

COMPREHENSIVE PLAN	COMMUNITY DESIGN	1. Visualize comprehensive community design that will include local wisdom and create corporateness. 2. Move towards a comprehensive rational layout of buildings by considering the uses of activities before beginning to build anything. 3. Use professionals as well as engaging the local people in designing the needed structure of the community. 4. Find the most visible locations for space transformations.
	CONSTRUCTION PHASING	1. Use initial construction to catalyze later constructions, one thing ends, another begins immediately. 2. Start demonstration construction carefully and build momentum. (i.e. demonstration house, then a demonstration block, then a demonstration stake.) 3. Don't let planning block action (i.e. do a mini park immediately, put up street signs, a rehabilitation sign.) 4. Locate motivating space, such as the pre-school or first industry in the center of the village.
	LOCAL LEADERSHIP	1. Remember the local people will be the directors of the project in 2 years time. 2. Choose who the 10 leaders of the project will be and train them hard. 3. Participate with the local leaders on the project steering committee in the planning and the work. 4. Take local leadership to the world and bring the world to the local to expand images of responsibility.
	AUXILIARY ROLE	1. Create a low profile while enabling the local to take responsibility. 2. Relating to a plan for one construction miracle a month; always tackle the miracles the auxiliary thinks are impossible to get done in the alloted time. 3. Find a way to feel responsible for your stake; such as walk in the area every day. 4. Realize the seriousness of your role. In two years the community becomes the auxillary.

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THE GUIDELINES FOR BUILDING COMMUNITY CONSENSUS

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Creating community concensus occurs through motivating the people to a deep image shift relative to the worth of their community. Completed, unrepeated miracles begin this process. Transformation of long standing traditional space affirms the history and past of a community. Finally, concensus is found through visual aids like signs, grids, and concrete community activities like work days. In this way the people unite to one purpose and begin to participate in the direction of change.

COMMUNITY CONSENSUS	SYMBOLIC SPACE	1. Transform rather than tamper with the traditional long-standing symbolic space of the community. 2. Choose a central node in a visible location using a powerful community symbol to state the concensus of the community. 3. Use a large local force to envision the possibilities in their community space. 4. Allow the community to celebrate and rehearse the new story by creating a central gathering place with local and global decor.
	VISUAL AIDS	1. Relate maps and actual space to local and global grids to ground the local residents in space relationships. 2. Expose the entire community to grids through the imaginal education tools of signs, posters, pictures, street signs, and bus stops. 3. Use visual aids such as a model village to motivate people to deal creatively with village space. 4. Use visual aids to allow people to see their relationship to local, nation, and the world, and to point to future possibility.
	MOTIVATING CLUES	1. Use soft and hard miracles regularly to motivate the community. Don't do the same miracle twice. 2. Engage the community in utilizing visible inexpensive models to see possibilities. 3. Commemorate and celebrate the dedication of all community structures to signify the happening of a miracle. 4. Finish everthing that is started.
	CREATING UNITY	1. Honor existing polity structures while changing attitudes towards the new. 2. Don't do your good idea; make sure space design is thought through stake, guilds, and the whole community. 3. Use well-planned workdays or any corporate activities to do the community concensus whether it be construction on individual or corporate space. 4. After significanct construction is done, create a "This is our Community" brochure with photographs to dramatize the change.

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THE GUIDELINES FOR ELICITING LOCAL ENGAGEMENT

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Seeing visible signs like physical improvements made possible by community involvement gives birth and sustains local engagement. Corporateness grows out of working hard together. Corporateness is intensified as the community observes that its resources, tradition, and forces are being creatively used. Corporateness grows as the community perceives the increasing skills of its members. The community that acts corporately will continue to engage itself and the communities around it in re-creating community.

LOCAL ENGAGEMENT	COMMUNITY RESOURCES	1. Build a model that demonstrates maximum use of locally available and locally produced materials. 2. Freely experiment with imaginative and creative use of the local resources. 3. Prepare a comprehensive list and current use of locally available resources and materials. 4. When local materials run out, use local people to go on calls for in-kind.
	COMMUNITY TRADITION	1. Quickly get on top of local traditional relationships to land and space as well as styles of construction. 2. Maintain existing nodes and major gathering places and passageways. Initial stages, don't tamper with historical sacred space. Gradually and carefully rehabilitate symbolic space. 3. Utilize existing styles and models as much as possible. 4. Don't expect scientific fact and rational logic to change local people's traditional values.
	COMMUNITY FORCES	1. Use paid workers when you have a demanding timeline; use volunteers with a more relaxed timeline. 2. Keep in tension what is required in the project tasks with what the troops can actually do. 3. Never do the task alone. Use imaginative and creative ways to engage every member of the community in the reconstruction task. 4. Skillfully and carefully discover what skills the local people really do possess. Effectively divide the labor tasks into manageable steps.
	CORPORATE-NESS SIGNS	1. Don't design residential areas like sprawling suburbs. Proximity aids corporateness. 2. Hold community events like the consult in central space which is neutral and unclaimed. 3. After community consensus on projects, make the work days whole community events by using good publicity and engaging all groups in enabling or participating in the day. 4. Find ways to dramatize community land as belonging clearly to the whole community.

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THE GUIDELINES FOR ESTABLISHING BACKUP SYSTEMS

Chicago

Visible space transformation is greatly enabled by paying careful attention to necessary research and back-up data. Thorough research is critical in preparation to do any project or doing the project will be blocked. Expertise can be helpful to a project when used through community consensus. Unclarity in land ownership can stop a project from moving. Immediate space transformation creates corporateness, engages the local population and is the best authorization vehicle available.

BACK-UP SYSTEMS	BACKGROUND RESEARCH	1. Get a geological survey of soil, water and climatic factors to use as factors in foundation and construction design. 2. Discern types of building design which can be rapidly constructed and will also be sturdy and adequate in local environment. 3. For the consult, prepare a complete list of locally available materials, a relief map showing elevation and drainage and sanitation conditions, a utility systems sketch, and a digest of local codes and regulations. 4. Get a complete list of construction-housing packages, requirements for construction-home loans, etc.
	LAND OWNERSHIP	1. Before the consult, acquire a detailed map of present land use, including a digest of land use regulations and a summary of the process of private and corporate land acquisition. 2. Don't let long-range government plans for land use block using space now; such as creating a mini-park on land designed for industrial use in 10 years. 3. Always double check land ownership and get permission before use--make sure donated government property hasn't been promised to another group. 4. Have an auxiliary and a local community representative contact absentee land owners to free up their land for community use.
	ESTABLISHMENT AUTHORIZATION	1. In order to succeed in authorization, contact key persons in government, corporations, and organizations consistently over a long period of time. 2. When in a company town, get the company nod on all design plans. 3. Involve government, corporations, and organizations in the actual work of the project. 4. For purposes of authorization visits, get visible space transformations immediately.
	PRACTICAL EXPERTISE	1. Use contradiction/proposals method with the community to create the elements of community space design, then elist the support of practical expertise to incorporate that in the model. 2. Line up an architect for the consult to prepare a base line map by the end of the consult. 3. Devise a training method to pass on expert's practical skills to the local people. 4. Capitalize on the use of various experts as the source of motivation and the new self image they can provide for the community.

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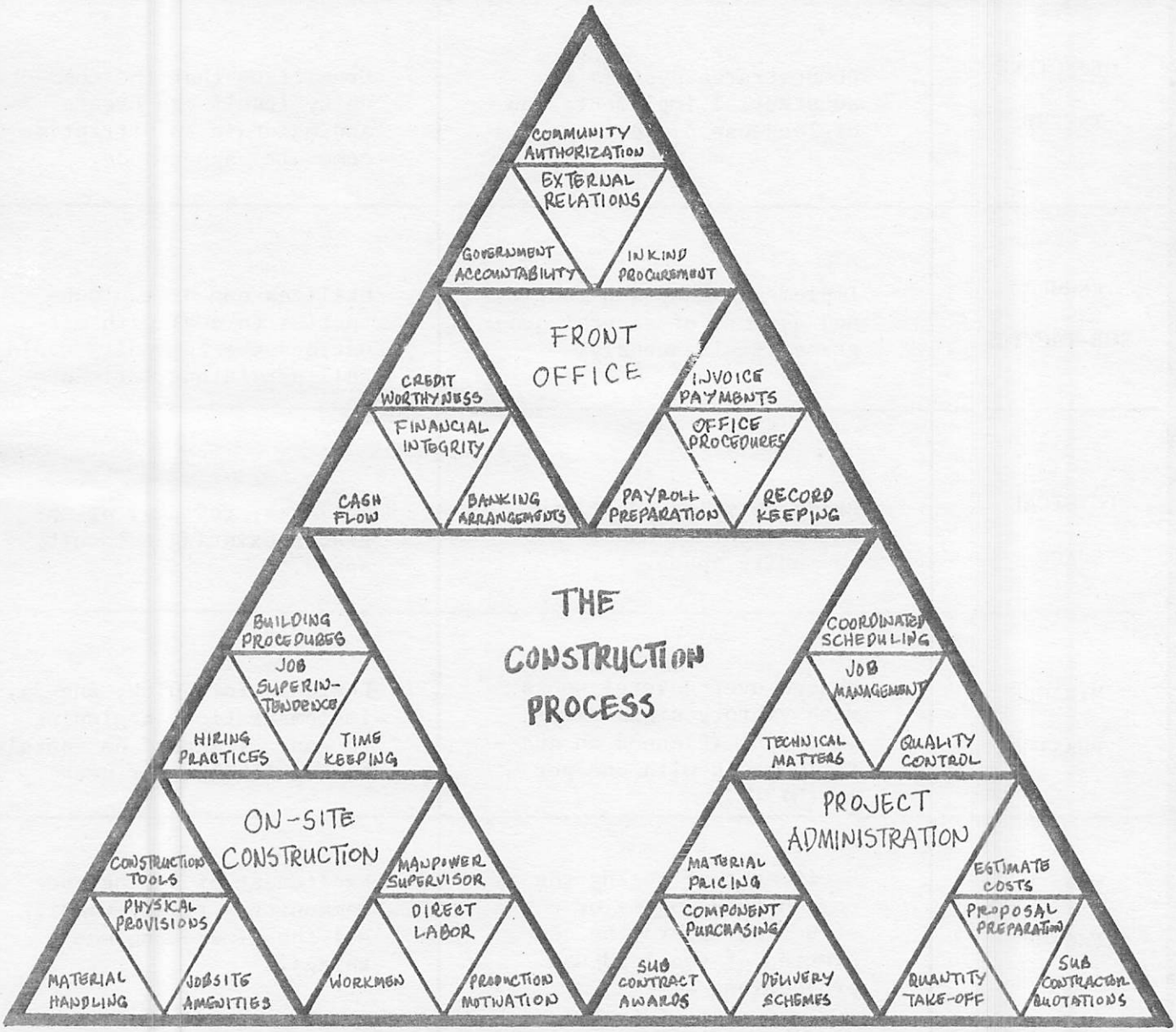
THE MIRACLES DESCRIPTION CHART

Chicago

	HARD MIRACLES	SOFT MIRACLES
OBJECTIVE INTENT	Demonstrates systematic, substantial implementation of land-use projection.	Dramatizes that the community itself can create and maintain an attractive community appearance.
PROGRAM SUB-TACTICS	Implements many sub-tactics and aspects of several programs simultaneously.	Utilizes one or two sub-tactics to deal with situations the community would call persistent irritants.
PHYSICAL SPACE	Produces major additions to or alterations of community space.	Polishes, refines, or upgrades existing community space.
MIRACLE PHASING	Phased over several weeks with victory signs timelined in. (Planned on quarterly basis with one per month)	Designed for quick, one-day implementation, beginning to end. (Planned on monthly basis with one per week)
MORALE FACTOR	Excitement of seeing the community doing major construction toward the completion of the land-use projection.	Excitement of seeing the community actively working all the time doing many things.
TROOP EFFECTIVITY	Sustains, deepens, and focuses the committment of those already engaged.	Involves new people through short time involvement and quick visible results.
NECESSARY RESOURCES	Requires major materials, often heavy machinery, and professional expertise.	Uses all locally available materials, tools, and expertise.

II. THE LOCAL CONSTRUCTION PROCESS

THE CONSTRUCTION PROCESS TRIANGLE



LOCAL CONSTRUCTION

II THE CONSTRUCTION PROCESS

The triangle of the construction process was drawn up to provide a comprehensive picture of all the dynamics that go on in any construction process and to be able to discern where within our projects the major blocks to doing construction are presently located. Our key block has to do with being paralyzed by the complexity of all the things that have to be considered in organizing major construction. The following material attempts to offer some practical tools and suggestions to overcome that block.

II. THE LOCAL CONSTRUCTION PROCESS

A. THE COORDINATED SCHEDULING

INTRODUCTION

Building a detailed coordinated schedule for all construction jobs is the answer to the major block relative to doing construction in most Human Developement Projects. The schedule is what allows for the effective use of the forces, time and material. It also allows you to estimate the amount of coordination and administrative functions, that need to be structured and assigned off site in order to enable the actual construction process to function.

1. The key to building an accurate schedule is to break your task down into components like foundations, walls, openings, floors, roof, etc. and taking each component and breaking it further down into smaller units. It is impossible for an inexperienced person to estimate how long it is going to take to lay a foundation, but anybody can imagine how long it will take one person to dig a one yard long ditch that is 2 feet wide by 1 foot deep. All you have to do then is to multiply your result with the total length of your foundation and you have the number of man hours it takes to dig the ditch for your foundation(see component sheet). The component sheet also allows you to see what tools and materials you need for any given job. Now draw a chart with your components down on the left and the days of the week across the top(see example) and begin to place each task on the chart using the catagorical names. Begin each task with a dot on the chart and extend it for the duration of the task. Example: Excavation totalled up to take 2 full weeks.

COMPONENT SHEET

2. Then ask yourself "What could be started next?" You will probably say "Foundations", but if you say "Roofs" you will be able to correct yourself by once again mentally constructing the roofs and realizing you need walls first. Now here is where the rtick of scheduling comes in. You realize that, (If you are building 20 homes and digging 20 holes and pouring 20 foundations, etc.,) you do not have to wait till all 20 holes are dug gefore you can begin to pour foundations. Realizing this, you decide to start pouring foundations the 2nd week, after half of your holes have been dug (of course if you stop digging holes to pour foundations, you will not be saving yourself any time, but probably extending it instead), so you keep one crew digging holes and start another crew pouring foundations. YOu put the dot for foundations on your chart in the 2nd week and extend it for as long as foundations will last. You then repeat this process for each catagory, beginning each as soon as it is physically possible, keeping in mind the size of your labor force and availability of tools on site. This provides you with your BASE FLOW CHART ON CONSTRUCTION. Now you can consider each week individually to see: 1. Total number of men needed this week, 2. All material needed this week, 3. all tools needed

BASE FLOW CHART

this week. You must ask yourself if you can deliver these things to the site when they are needed, or go back and start changing around your time design. The object is to shorten your time design as much as possible, while not having men on site without enough tool or material (or vice versa). The process of changing around your time schedule in order to maximize the use of workers, material, and tools will be taken up more toroughly in the next method of scheduling. Examples of each step described in the forgoing method are provided in the back of this section.

3. The event-oriented method of scheduling is based on the question "What events can occur today?" and "What event must happen before this work can begin?" The first steps of determining quantities of time, material, and work force are the same as in the previous section. You must have your basic component sheets worked out before you can begin the process of scheduling shown here. Also, this method is used by construction companies, especially when they are doing several separate construction jobs at the same time, and clarity on the daily critical issue is nearly impossible to determine, along with just plain coordination. The second step is beginning with your basic component sheets, using the "bottom line" of each (ie. total workers, total materials, total tools) and focus on TIME totals. You begin to construct, on a piece of large paper, a network showing the various tasks "built off" each other. Look at the example in the back of this section. You start with two points at opposite sides of the paper marked "start" and "finish". Beginning with "start" point, you draw a horizontal line, (short, since everything must fit between the "start" and the "finish"), place a small circle at the end of it, (which you leave blank till the end), and write "lay-out", (or whatever your first task will be,), on it with the number of days required for lay-out underneath it. Now you move up or down and place your next horizontal line with a circle at the end of it, and mark it "excavation", or whatever comes next. You continue this all the way through to the end of the job, placing tasks and the number of days under each one. Here are some pointers in making your network:

NETWORK DESIGN

a. The foreman of the job makes the first "draft" using his perspective as the man in charge on site.
b. The circles represent events, the lines represent tasks.
c. The main question is "What event needs to happen before this work can happen?" This will give you an idea of what sequence to put things in.
d. The object of this excersize is to see what tasks can go on simultaneously, and what must happen before you can begin any particular task.
e. The circles are filled in last with the number of the day of the project. (Example: 11th day of project, 15th day of project)
f. This is a self correcting excercise, provided you mentally construct the job each step of the way.

g. Your paper will be a mess before you finish so don't worry about it. If it is not a mess, you are probably thinking linearly (or one thing at a time) or you have left out a lot of contingencies.

Once you have a draft of a network, with all tasks and times written in, go back and 1. add up the time of interconnecting events and make sure you don't have obvious errors (like your total time for 20 home is 5 days) or internal conflicts (like you need doors on the 11th day and they won't be made until the 15th day). NOW, you must determine the CRITICAL PATH of the schedule. This means the events that absolutely must happen by a certain time or the job will come to a halt. The critical path should be traced through the whole network, and it will probably go up and down. Check all factors to make sure you have it right. The exercise is a waste of time if you leave out this step. Now redraw your chart nicely by making the CRITICAL PATHa straight line drawn to some scale of equal distances for each day of the job. Only the critical path will be drawn to scale, so do not worry if other lines seem too long or short. Doing this will help you to imaginally see what you must pay attention to, (Example: anything on the critical path), by drawing it to scale you have the added benefit described next. On the wall of your planning room, you should make a calander of every day of the year (or at least a quarter) drawn horizontally according to the same scale as you on your network charts. Now you can tape up any number of charts (one for each project you are doing or going to do) on the larger calendar. This master chart will them inform you how to handle interrelated issues on different jobs, (like material purchasing, delivery schedules, cash flow, crew swaps, etc.). Most importantly it will permit you to guard the critical path of each individual project, further maximizing your use of workers, materials, and tools. It will also help you to avoid working on the wrong thing at the wrong time.

NETWORK DESIGN

Most construction operations, depending on their size, use the network method for administrative, and financing scheduling too. It is necessary if you are doing 20-30 projects at once and coordination is literally impossible. When the unexpected happens, like rain on a day when you planned to pour concrete you just move the whole schedule on that job over one day, and you immediately know you will be one day over your completion date. Likewise, if a task gets done quicker than estimated, you will finish much sooner. The point about the foreman making the first draft is important (instead of the administrative group), since it forces him to think through the entire job before he begins, and is then prepared to spend his time focusing on the critical issues that will inevitably make up each day.

CONCLUSION

PLATE 4: THE SCHEDULING FLOW CHART

FIG. 1: FIRST DRAFT

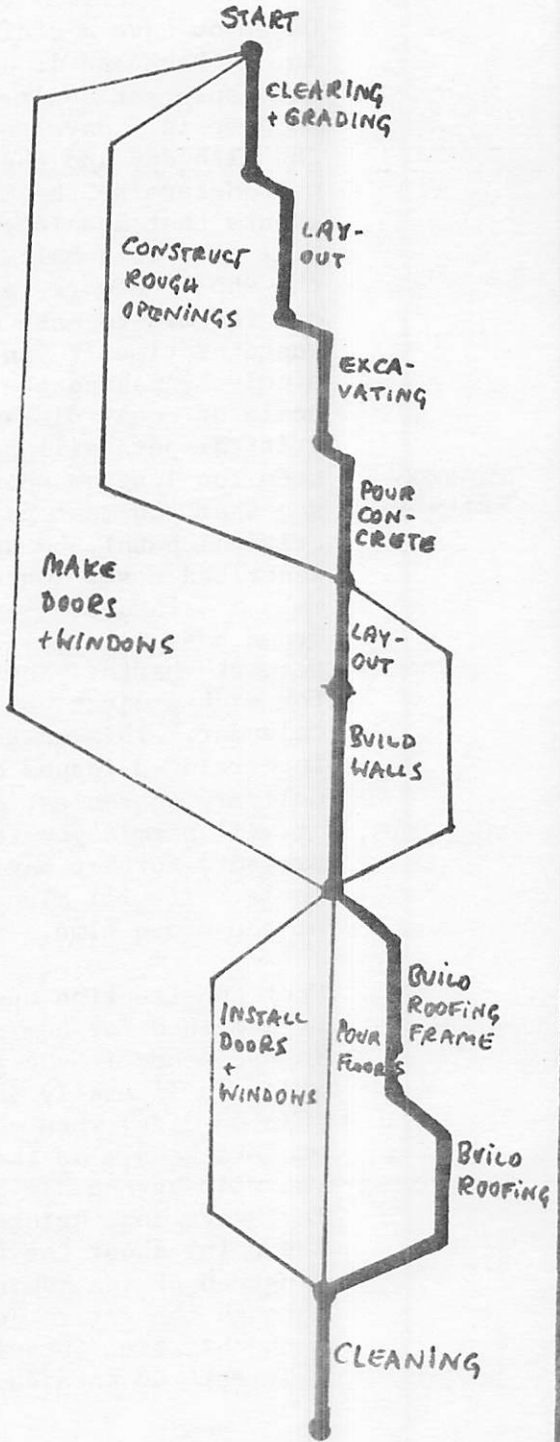
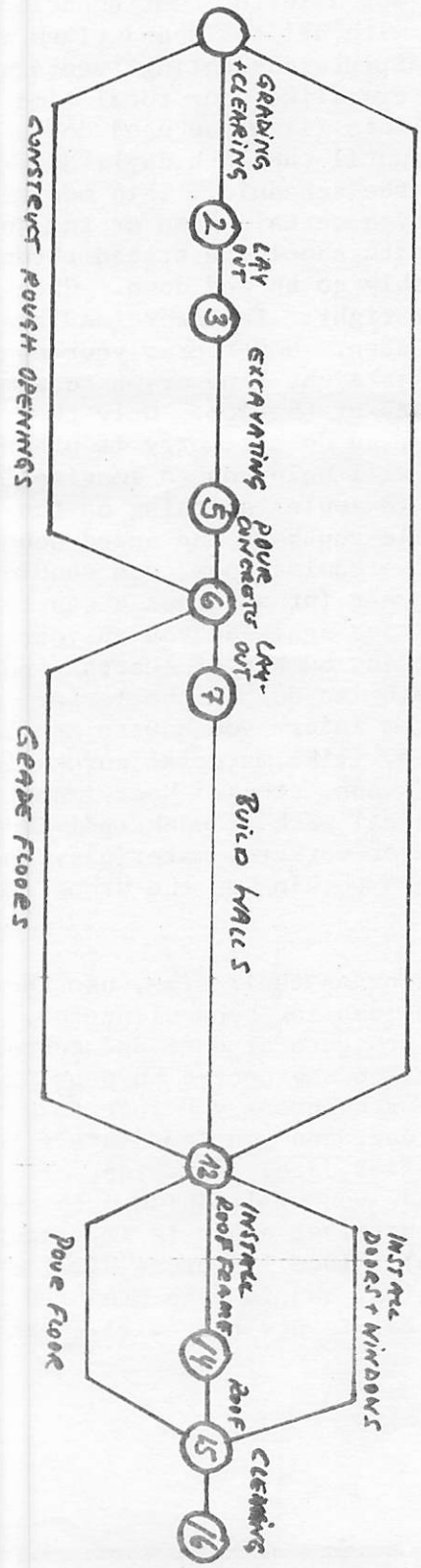


FIG 2: CHART ON SCALE



B.

PRACTICAL CONSIDERATIONS

SUBCONTRACTING

To avoid capital outflow from your community, as many components of your construction task as possible should be accomplished by local forces. There will nevertheless be components that require special skill or equipment which needs to be hired from the outside.

COST-PLUS-CONTRACT
LUMP-SUM-CONTRACT

There are some things you should know about subcontracting to save time and money. A contractor will usually offer you a COST-PLUS-CONTRACT. That means he will give you an estimated price for the job without any obligation or guarantee to actually stick to it. Very often the price will be much higher in the end than the estimate. There is no reason for the contractor to work quickly becuase he will charge you on the basis of the amount of manhours spent. Chances are pretty good that you will lose time and money with this type of contract unless you know your contractor well and can trust him. It is therefore generally preferable to negotiate a LUMP-SUM-CONTRACT. With this type of contract the contractor is bound to the price you negotiated. He will be interested in doing the job quickly to increase his profit. What you have to watch for here is quality.

CONTRACTOR PRICES

Often prices of contractors will vary considerably. It is therefore important to receive competitive bids from several contractors for the same job. In order to evaluate the bids, you have to make your own estimate on the basis of time, material and labor involved. Prices much lower than your estimate may indicate low quality.

CONTRACTOR CREDIBILITY

If you have any doubt in the capability of your contractor to do your job adequately, check him out on the basis of his experience, equipment, troops, and financial situation. Get a list of his most recent projects with the names of the clients to determine the scope of his experience. Find out if he has the equipment to do the job with and determine if he has the troops to do the job in time. Check also if he has other projects going at the same time. Finally you may want to ask him for a financial statement to make sure he has the resources to carry the job through.

MATERIALS AND TOOLS

The construction schedule is the only basis to figure tools and materials needed for the job at a given time. Without adequate preparation, much time and money can be lost. A coordinator needs to be assigned ahead of time to think through the whole process and make sure all the tools and materials are available at the right time and in the right amounts.

LOCAL TOOLS AND MATERIALS

In many countries the tools people use are different from what you may be used to. In India, for example, people use bowls or baskest to transport dirt. You may waste a lot of time in the attempt to switch them over to wheelbarrels. Use some time to find out what tools people use to accomplish certain tasks. It will probably be much easier and cheaper to get those common tools and you won't have to teach them how they are used. The same is true for materials. The fact that you use concrete made of different sands, cement and water in your own country does not necessarily mean that this is the only way to do it. There are many ways to mix concrete and mortar. Let the local people teach you what materials and methods they are using traditionally and find out what their qualities are and if at possible do it their way.

MATERIALS AND TOOL STORAGE

For any kind of construction you have to provide storage space for your materials and tools. Without a central storage the work area is cluttered, people's work becomes haphazard, and they lose momentum. To have adequate storage space also enables you to buy quantity and save money. Depending on the size of your job it may also be helpful to assign one or more people to be in charge of storekeeping. An older person, unable to be a part of the work force, is often a good choice. The storekeeper's task is to keep inventory of your materials and to keep track of the tools. He can also maintain and repair the equipment and tools.

III. THE LOCAL BUILDERS GUILD

A. Local Organization Essay

VISION — A task assigned to every worker is necessary to maintain motivation. Thorough planning and scheduling before the project begins assist in determining realistic assignments.

ENGAGEMENT — Every worker needs to have a mental picture of the project. This can be done by making a model of the finished project. A model produces the vision which raises work above the mere "digging of a hole". Furthermore, the total community needs to be behind the project, supporting and upholding the vision.

MOTIVATION — Organizing the work force is based on a first-hand knowledge of what tasks people must actually do. This eases the job of planning several simultaneous operations. Scheduling of events first permits assignments to be made on a comprehensive basis. In several cases, not all workers are needed immediately, and therefore some kind of "crew injection" scheme must be designed. The most common trap here is "linear thinking" or "A" follows "B" follows "C" follows "D", etc. in the planning process. This usually results in long, drawn-out tasks, material shortages, and workers standing around without assignments while everyone waits for a single individual to complete his job. By asking two questions: "What are all the things that could go on today?" (Thinking "Vertically") and "What event must occur before this work can be started? ("Network" thinking), planning can be sorted out and focussed on the most critical issues. Rewards are important. Praise for a good job improves workmanship. Also, improved workmanship and sheer effort are often overlooked. Time out for fun and special celebrations enhances motivation. Fun is relaxing. Admiration by the village or the workers families can be a sign of the communities support of the project. The celebration of the first house completed makes a tremendous event.

B. THE MALIWADA GUILD MODEL

BUILDERS GUILD
MALIWADA HDP CONSTRUCTION TEAM: REPLICATION MODEL

The Construction Team of 70 workers is divided into 4 groups, each with 20+ workers. Each group is headed by a skilled mason foreman. The foreman is responsible for individual task assignments. There is one general supervisor to direct the entire group. Every worker can feel his responsibility to the whole construction team and to the village project. This group has been able to visibly change the village design in several villages.

The key to motivation of such a large workforce (bigger than most American construction companies) is based on a model that includes the worker's entire life and role he plays in the village. The mental satisfaction derived from both individual and corporate achievement has been achieved in several ways:

COLLEGIUM (Mornings): Every morning at 7:30 am all workers meet together for breakfast. They sing, do a ritual, have a common conversation on a specific topic of interest, and sometimes a short speech. The subjects they cover include: their community's story, other communities where HDP's are going on, Indian history, Hindu mythology, and the stories of great people. These all motivate for hard work. They converse on government structure, economic development, Indian geography, and study photographs of villages in other countries. They also study the work of other guilds in their own community along with the stakes and future construction project sites. The Education Guild has started teaching the workers literacy classes.

The workers are beginning to learn masonry work. They know they are working as masons and carpenters every day. All are paid wages, and some receive as much as 12 rupees everyday.

Once a month, the construction team has a picnic or a party. Sometimes they arrange cultural programmes, games or information films. They are eating more breakfast. They now have medical facilities (which they helped to build).

Every Sunday, the workers work as volunteers along with the other villagers. (Shramdan). This helps to build a sense of community responsibility.

All these things make good organization.

Superintendant of Maliwada Construction Team