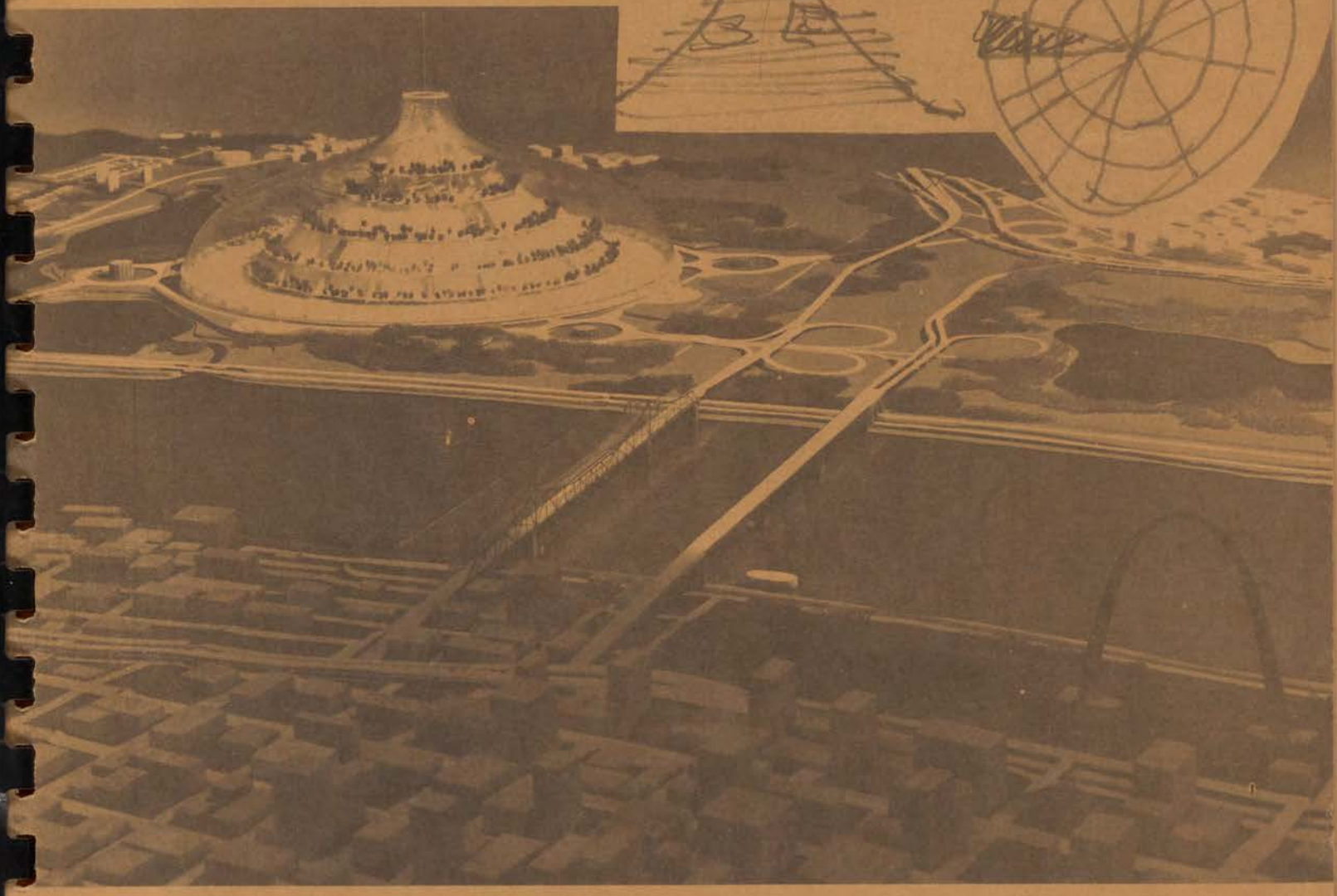
THE NOTEBOOKS

Old Man River Project



JAMES FITZGIBBON

OLD MAN RIVER

AN ENVIRONMENTAL DOMED CITY
A CONCEPT DESIGN FOR E.ST.LOUIS IL.

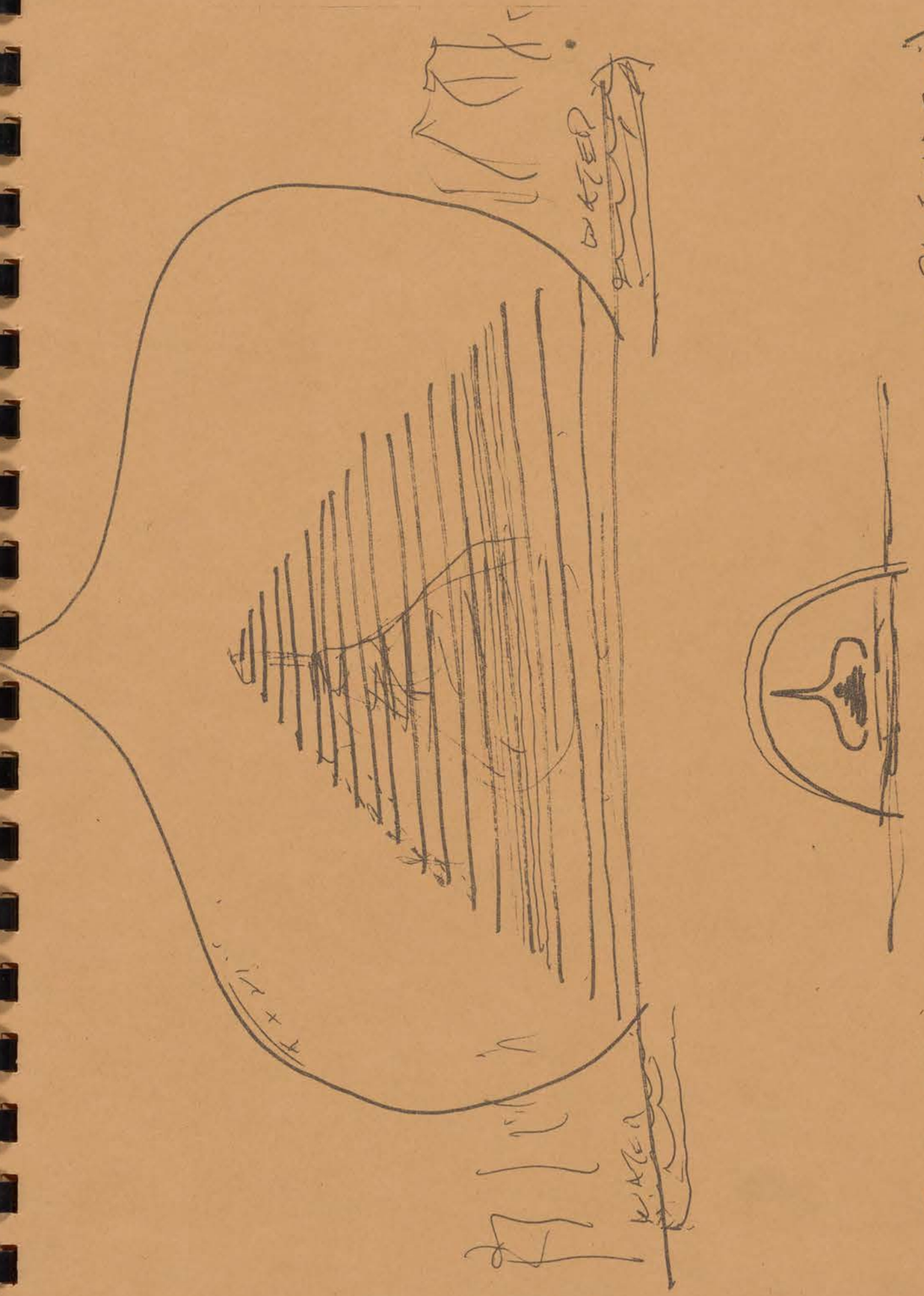
BY R.BUCKMINSTER FULLER

The OLD MAN RIVER NOTEBOOKS are a record of some of the ideas,the events and the intentions that have enlivened this search for the good life for East St Louis Illinois.

Many minds and hands and dedications are involved in this ongoing effort. Buckminster Fuller,Robert Ahart,Wyvetter Younge and Katherine Dunham started it. Tom Thomson,Carl Safe,Denny Cope,Carl Utchmann,Bill Wischmeyer,Mary Brown, Chris Grubbs,Ken Johnston,Margaret Fitzgibbon,David Jordon, Al Moelker, Marjorie Miller,Gordon Wittenberg,Pat Cronin, Ron Steele and many others from East St Louis,St Louis and Washington University have given time and thought,hard work and encouragement to this vastly interesting adventure.

.The NOTEBOOKS are a private printing and are exclus vely for use by those who are directly connected with this work in progress.

James W Fitzgibbon
Washington University
The School of Architecture
September 1972



EAST ST. LOUIS PLAN COMMISSION

7 COLLINSVILLE AVE. EAST ST. LOUIS, ILLINOIS 62201 274-0613 AC 618

February 22, 1971

Mr. James W. Fitzgibbons
6927 Waterman Avenue
St. Louis, Missouri

Dear Mr. Fitzgibbons:

Dr. R. Buckminster Fuller, world renowned inventor, architect, designer, philosopher, and mathematician, will be in East St. Louis to personally speak on his "Design for Better Living."

In accordance with a resolution passed by the City Council of East St. Louis on the 18th day of November, 1970, you are invited to attend a Public Forum at 7:00 p.m. on Thursday, February 25, 1971, at the Mary E. Brown Community Center, 617 South 15 Street.

The purpose of the meeting is to hear Dr. Fuller's presentation and to discuss the much talked about Riverfront of East St. Louis.

The resolution reads as follows:

> "That a Design and Development Team be instructed to provide a forum in which all citizens and other interested parties can re-act to and make known their desires, wishes, and ideas for the development of the East St. Louis Riverfront."

Since you are very much a part of East St. Louis, it would be most appreciated if you would plan to attend the meeting. I will be looking forward to seeing you there Thursday evening.

Sincerely,

Wyvetter Younge

Wyvetter Younge
Chairman

Fuller's dream for East St. Louis: Everyone has place under the sun

Metro-East Journal

Fuller's vision: City under dome

B

The following resolution was passed by the City Council of the City of East St. Louis to implement the proposal for the East St. Louis Riverfront.*

R E S O L U T I O N

A RESOLUTION ESTABLISHING THE EAST ST. LOUIS DESIGN AND DEVELOPMENT TEAM (17)

WHEREAS, Professor Buckminister Fuller has agreed to participate in a Design and Development team for the redevelopment and renewal of the East St. Louis area.

WHEREAS, the East St. Louis Planning Commission desires to cooperate fully with the technical resources such Design and Development Teams will make available to our community.

NOW, THEREFORE, BE IT RESOLVED:

That the City Council hereby established the East St. Louis Design and Development Team.

That the City Council invite Buckminister Fuller to serve on the Design and Development Team.

That such Team actively solicit the support of senators and representatives in asking the Governor of the State of Illinois to participate in the research and development efforts for the East St. Louis riverfront.

That the said Design Team explore fully an optimum design for the Development of the East St. Louis Riverfront.

That the said Design Team explore fully the economic feasibility of developing the East St. Louis Riverfront.

That a Design and Development Team be instructed to provide a forum in which all citizens and other interested parties can re-act to and make known their desires, wishes, and ideas for the development of the East St. Louis Riverfront.

Passed by the City Council of the City of East St. Louis, Illinois, this day _____, November _____ 1970.

_____

Mayor - Alvin G. Fields

_____

_____

_____

_____

Commissioners

Filed: November 18, 1970
Recorded: November 18, 1970
Signed: November 18, 1970
Approved: November 18, 1970

ATTEST:

_____
D.P. O'Brien
City Clerk

THE GOOD LIFE FOR ANY MAN DEPENDS ON THE GOOD LIFE FOR ALL MEN.

Fri., Feb. 26, 1971 ST. LOUIS POST-DISPATCH

GLASS UMBRELLA FOR EAST ST. LOUIS: Architect R. Buckminster Fuller displaying a model of his proposed "spheroidal surface dome" in East St. Louis last night. The dome would provide controlled environmental living for 30,000 persons in East St. Louis. (Post-Dispatch Photo by Nicholas Sapieha)

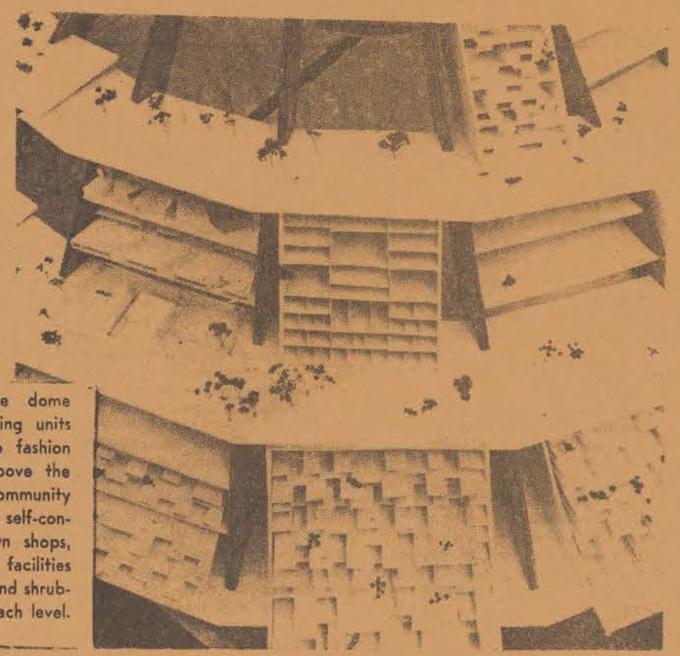
Glass City Proposed For East Side

R. Buckminster Fuller, noted for architectural designs involving the use of domes, presented plans last night for an aluminum and reinforced glass city that would resemble Mount Fuji and house 30,000 persons.

Fuller, professor at Southern Illinois University at Carbondale, proposed a controlled environmental living situation as part of the East Side riverfront development.

Fuller spoke to about 130 East St. Louis residents at a meeting closed to the press. He held a press conference afterward. The meeting was at the Mary E. Brown Center in East St. Louis, which structure Fuller had designed.

"I am bringing this to the people first," Fuller said. "If they reject it, we drop the plan."



DENIZENS of the dome would reside in living units built up in terrace fashion from four levels above the ground. The community would be largely self-contained, with its own shops, offices, recreation facilities and parking. Trees and shrubbery would adorn each level.

Mrs. Wyvetter Younge, chairman of the East St. Louis Planning Commission, said moves had been made of Fuller's presentation and would be shown at several public forums.

Fuller's plan calls for construction of the cone-shape structure just south of Eads Bridge. It would be 900 feet high, one-half mile in diameter and rest on supports so traffic could flow underneath.

Fuller spoke of a "spheroidal surfaced dome," but in more common terms called it an umbrella and said it had been named "Old Man River."

The design shows 10 levels of terraces on the outer shell of the cone. Four levels of living quarters would be in each of the terrace areas.

Residents would live on the outside of the shell. Inside, the "crater" would house shopping centers, recreational areas and, hidden from view, equipment needed to regulate temperatures and other factors.

"It is a plan for an environment free of pollution, free of class distinctions and it must be free of racial tensions," Fuller said. "The whole idea is that it should be a city that would celebrate the fact that there is no race."

Geodesic Dome Inventor To Offer E. St. Louis Plan

R. Buckminster Fuller, architect and inventor of the geodesic dome, is preparing a plan for the development of East St. Louis, it was announced yesterday. The plan will be presented at a press conference Feb. 25.

Robert Ahart, chairman of a steering committee working with Fuller, said that industrialists in the area would be approached, beginning this week, to determine their interest. The project would be developed with private capital.

Ahart said that a number of nationally prominent persons might be involved in the project, which "will affect 50,000 to 100,000 people with the riverfront as a prime target."

Fuller, professor of generalized design science exploration at Southern Illinois University, Carbondale, is internationally known for his work in planning projects designed to remedy world problems. "Do more with less" is his motto.

Ahart said that preliminary sketches and models of the project were being prepared. He would not discuss the nature of the project or its estimated cost, "other than it will be big, dramatic and spectacular."

Fuller, 75 years old, apparently became interested in East St. Louis through his friendship with Miss Katherine Dunham, a retired dancer living in the city.

With her and Mrs. Yvetter Younge, chairman of the city planning commission, discussions were held about the city, its dismal condition and its future, Ahart said.

Fuller "has a feeling for poor people," said Ahart, who has been involved in organizing and assisting black-owned businesses. "He is anxious to get this done."

After the proposal is made, community meetings will be held March 8, 9 and 10, Ahart said. "It will be for the community to accept or reject the proposal," he said.

He said that if private funds were not sufficient to develop the project, federal assistance might be sought.

"The project has to go because it will help so many," Ahart said. "This is for those who are talked about but never helped."

The race is on for new towns

A rush is under way to get in on new-town development. Since President Nixon signed a law last Dec. 31 permitting developers to apply for federal loan guarantees, "we've been overwhelmed with inquiries," reports William J. Nicoson, director of the office of new communities in the Housing & Urban Development Dept.

Large companies, in particular, are showing keen interest. The Urban Life Institute, a subsidiary of Rouse Co., which is building the widely publicized town of Columbia, Md., has twice sold out five-day seminars on "The Columbia Process" at $750 a head. At a two-day meeting last week, more than 50 representatives from private concerns, developers, banks, consultants, and public agencies heard Nicoson and other experts explain Title VII of the Housing Act, which deals with new communities. On hand were people from such companies as Chrysler Realty Corp., Dillon, Read & Co., Chemical Bank, and Owens-Corning Fiberglas Corp., as well as members of Rockefeller family interests. Recently, David Rockefeller, chairman of Chase Manhattan Bank, proposed a private corporation to tap as ~~much as $10-billion for new-town~~ development. Rockefeller agreed with an earlier study group that had urged the U. S. to think in terms of building at least 10 new cities and 100 smaller new towns.

One consultant on last week's seminar, J. Timothy O'Reilly of Robert Gladstone & Associates, reports he was approached by "four different developers, each of whom had a piece of property and was ready to go."

Foot-dragging? One major worry darkens the hopes of the scores of companies eager to leap into the new-town business: They wonder whether the Administration is ready to provide the grant money and the staff HUD officials need to process applications. At

I don't want to see the whole city in a dome but I would make A good tourist attraction to boost the E.S.L. economy. Perhaps Recreational Facilities, cultural, and historical Facilities could be built or moved into this dome. Comment BY AN E.ST. LOUIS CITIZEN

Commercial, Housing Center Of $1 Billion Set at Chicago

By a WALL STREET JOURNAL Staff Reporter

CHICAGO — A 3,000-acre complex of housing, industry and shopping will be built about 30 miles west of Chicago at an estimated cost of $1 billion over 12 years, developers said.

Urban Investment & Development Co., a unit of Aetna Life & Casualty Co., will develop the complex. Joint developers of the residential section will be Homart Development Co., a subsidiary of Sears, Roebuck & Co., and Mafco, a subsidiary of Marshall Field & Co.

Urban Investment said it hoped to break ground this year on the first phase of the project, a 1.2 million square-foot enclosed shopping center [illegible] square feet to include an outlet of Lord & Taylor, New York, the company said.

Mafco and Urban Investment currently are involved in several joint ventures in the Chicago area, including a $100 million [illegible] complex on North Michigan Avenue.

THE GOOD LIFE FOR ANY MAN DEPENDS ON THE GOOD LIFE FOR ALL MEN

Domed City For 20,000 Inhabitants In Arctic Region A Reality By 1983

Artist's rendering of domed city for 20,000 persons. Photo courtesy ENR and Institute for Lightweight Structures, Stuttgart, West Germany

---

Metro-East Journal

53rd Year No. 18 Section A FRIDAY, FEBRUARY 26, 1971 * * * 18 Pages 2 Sections Price 10 Cents

Fuller's vision: City under dome

By John Shafter
Metro East Journal Staff

Photographs on Page 11

Fuller's dream for East St. Louis: Everyone has place under the sun

By Rube Yelvington
Editor
Metro-East Journal

Fuller calls his domed city plan "Old Man River"

Sought by Missouri leaders

FAA official: No airport delay

By Steve Weinberg
and
June Gladfelter
Metro-East Journal Staff

Sites: Page 3

North Vietnamese overrun South paratrooper base

Saigon (AP)

Colder

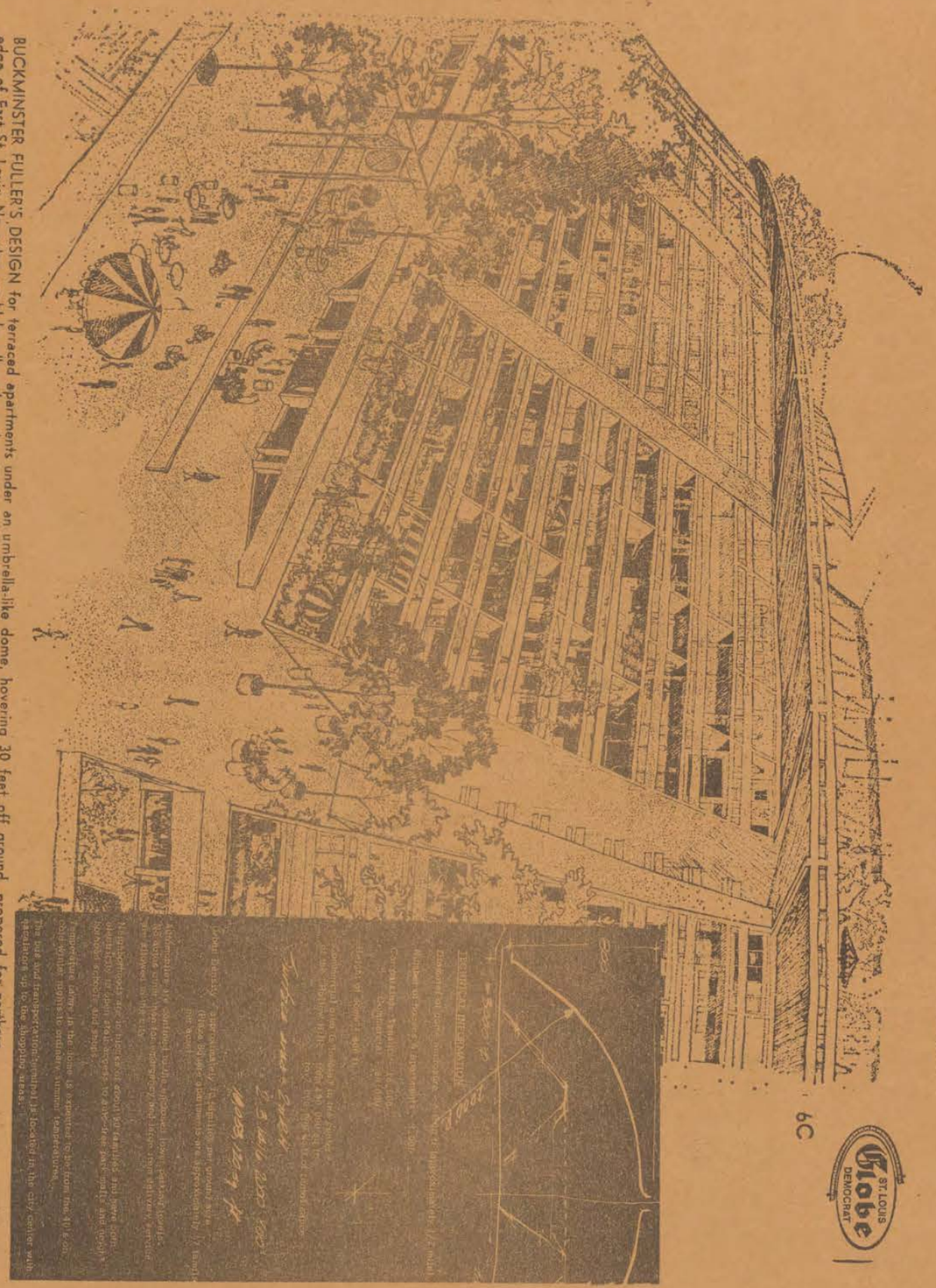
Train union votes strike

Chicago (AP)

Metro-East Journal Sunday

First step in basketball's march to state championships

Ogilvie offers plan to preserve recreation areas



BUCKMINSTER FULLER'S DESIGN for terraced apartments under an umbrella-like dome, hovering 30 feet off ground, proposed for northern edge of East St. Louis. No autos would be allowed on the city streets in the sky. Instead residents would use golf-cart like vehicles.

6C

City Under Glass

R. Buckminster Fuller's concept of a city enclosed in glass for construction on the East St. Louis riverfront is as bold and imaginative as might be expected of Southern Illinois University's genius-in-residence. Mr. Fuller would erect an umbrella-like dome half a mile in diameter and place therein, on a conical hill, 9000 garden terrace apartments for 30,000 to 40,000 persons. Inside the mountain would be the required service facilities; the whole environment would be pollution free.

It would be a great mistake, we think, to place a 900-foot structure like this close enough to dwarf the 634-foot arch. Given a proper site far enough from the arch, however, the Fuller plan is worth considering despite the tendency to dismiss it offhand as impractical. Cost, of course, would be a critical question; Mr. Fuller previously intimated something like 500 million dollars.

Cost aside, the glass-enclosed city, which Mr. Fuller calls "Old Man River," would be an international sensation, and what it would do for the St. Louis-East St. Louis metropolitan complex in terms of public attention taxes the imagination. Mr. Fuller envisions his dome as enclosing a raceless, classless society—a city of the future.

We think Mr. Fuller should be encouraged to continue with the planning of the project, and that there ought to be a thorough public discussion of its merits and demerits. We have a suspicion that despite its novelty the idea is not so far from practical realization as might at first be thought.

Metro-East Journal
FRIDAY FEBRUARY 26, 1971

World attention would turn toward East St. Louis if this dome-covered city of 30,000 to 40,000 were to rise on the riverfront

ST. LOUIS POST-DISPATCH

Buckminster Fuller's idea for riverfront: Transparent dome over homes on terraces

"Old Man River" entered the East St. Louis riverfront arena (opposite picture- Thursday) from where R. Buckminster Fuller presented his vision for a dome-covered city.

As many as seven thousand could live in the proposed environment in garden terrace apartments on a conical mountain, designed to give those in the 40 of the apartments a view of freedom.

Fuller, who is director of basic architectural research at Southern Illinois University, has said the 9 dome-covered city would be sought between now and March of the Fuller said he

The park services and Fuller

James W. Fitzgibbon, architect and associate of R. Buckminster Fuller, helped develop the model and plans

Fuller under dome

EAST ST. LOUIS PLAN COMMISSION
7 Collinsville Avenue
East St. Louis, Illinois 62201

April 5, 1971

B.F. Cate
Send Jim Fitzgibbon
a copy of this

Dr. R. Buckminster Fuller
P. O. Box 909
202 West College
Carbondale, Illinois 62901

Dear Dr. Fuller:

At our second Public Forum there were only 10 persons present. Enclosed please find the comments of four people who gave their reaction.

We have Public Forums set up for April 5, April 14, and April 21. Then on April 29, we are planning on your presentation.

I am forwarding these responses to you so you will be aware of the community reaction at this time.

Sincerely,

Wyvetter Younge

Wyvetter Younge
Chairman

EAST ST. LOUIS PLAN COMMISSION
7 Collinsville Avenue
East St. Louis, Illinois 62201

Mr. James Fitzgibbons
6927 Waterman
St. Louis, Missouri

Dear Mr. Fitzgibbons:

We, the East St. Louis Plan Commission, invite you to be our
pecial guest and speaker at our next Public Forum to be held
inesday, April 21, 1971, at 7:00 p.m. at the First Methodist
rch, 1301 Summit Avenue, East St. Louis, Illinois.

At this forum, we will be showing a film about Dr. R.
nster Fuller's "Old Man River". It is our hope that you
lease be present to give a short lecture and to answer
ns raised by the audience.

k you for your continued cooperation.

Sincerely,

Wyvetter Younge

Wyvetter Younge
Chairman

RE
AP
R. BUCKM

Metro-East Journal®

102 Section A FRIDAY, APRIL 30, 1971

Fuller speaks in East St. Louis

Support for dome voiced

By Gene Hogan
Metro-East Journal Staff

Guarded acceptance of a domed city on the East St. Louis riverfront and a desire for more expansive plans were expressed Thursday night at a public meeting.

R. Buckminster Fuller, creator of the geodesic dome and renowned throughout the world as visionary planner, made his second presentation on the planned community at the Mary E. Brown Community Center which he designed.

His presentation was illustrated by large photographic and diagram drawings of the domed city and a model prepared by design an architectural students at Washington University, St. Louis.

Fuller, a research professor at Southern Illinois University-Carbondale, has prepared preliminary sketches for such a project at his own expense. He has been assisted by James W. Fitzgibbons, associate professor of architecture at Washington University, and a team of students.

Mrs. Wyvetter Younge, chairman of the East St. Louis Plan Commission, pointed out Fuller had been invited to elaborate on a concept he outlined at a meeting last Feb. 25. He had asked for community response to the proposal and said it would be dropped if the community did not approve.

At the conclusion of the meeting Thursday night Fuller was asked to proceed with planning along with the construction of a model which would indicate living conditions in an enclosed development housing 30,000 to 50,000 persons.

Fuller and his associates also agreed to prepare a documentary film which could be used to explain the concept to groups throughout the city.

Miss Katherine Dunham suggested that the model and other displays could be exhibited to good advantage in the center in Lincoln Park.

Fuller, who has 26 honorary degrees from universities throughout the world, said he was not concerned with real estate values or what grants are available but wanted to do the greatest good for the people of East St. Louis.

Fuller said it was reasonable to assume construction would take 10 years and said this this period of time may be the most spectacular in the history of man. He pointed out large jet planes are only 10 years old but have replaced ocean liners as a means of transportation.

The Metro-East area is at the axis of east-west and north-south travel patterns, he said, and will continue to be at the hub. He said he was, at age 76, committed to the East St. Louis project.

"There is a lot of nonsense going on," Fuller said. "Because of state laws man cannot live in buildings where he works so we have only typewriters sleeping in these fine buildings with all the wonderful plumbing and the worker living in slums."

Vernon Taylor expressed concern for the poor people of the city and other speakers asked whether the project would benefit people or simply displace them.

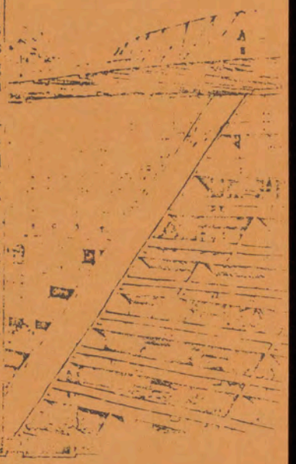
Barry Henderson said "If it weren't for people who can look ahead we would still be living in the Stone Age."

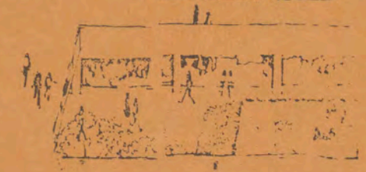
Mrs. Younge said all people want a better life for their children and urged Fuller to proceed with his work.

Elmo Bush, city commissioner-elect asked "Why deal with yesterday's problems in a yesterday way? We need to jump far ahead and I will help work on this project."

Bennie Donald, principal of Alta Sita School, also supported continued study of the proposal.

Fuller said it would be possible to build the riverfront project without an enclosing dome. Changes would be possible throughout the planning and construction of the project and it would be built to conform to the wishes of the people it would serve, he said.





EAST ST. LOUIS ADVISORY AND DEVELOPMENT
NON-PROFIT HOUSING CORPORATION

2000 S

TIME:	Begin: June, 1972	Begin: January, 1973	Begin: June, 1973	Begin: September, 19
ACTIVITY:	Fund Raising Campaign	Construction of OLD MAN RIVER COMMUNITY DIALOGUE CENTER	Interior used to generate dialogue concerning the OLD MAN RIVER DEVELOPMENT and the quality of LIFE avaliable there: --Goal Establishment --Design Characteristics Defined	Remodel interior for use as a Neighborhood Community Center
PARTICIPANTS:	1. Local Share 2. Governmental Share 3. Foundation Share	1. Umbrella 2. Housing 3. Scale Model	1. Citizens of East St. Louis, Ill. 2. People visiting East St. Louis from around the World	1. Local citizens

Wyvetter Younge
Executive Director

Professor James Fitzgi
Professor of Architect
Washington University
6927 Waterman
St. Louis, Missouri

Dear Professor Fitzgib

Thank you for indicating in our telephone conversation that you would participate in the fund raising efforts to build the 120 feet model of R. Buckminister Fuller's Enviornmental City in Jones Park.

I have spent the time since our conversation, preparing visual materials for your consideration. These materials will serve as a beginning basis for our fund raising efforts.

Would you please have lunch with me at the Holiday Inn, 6th and Broadway in the Eads room, at 12:00 noon o'clock, on Friday, Febr... 25, 1972. Mr. Fitzgibbons, Professor of Architecture, will present Mr. Fuller's memories. Then, we can discuss a fund raising plan.

The following persons who have agreed to help, h
the meeting:

Mr. Herbert Littlefield, President of Southern I

Mr. C. J. Rogers, President of First National Ba

st St. Louis Plan

tor of Industrial

ofessor of Archit

nager of Union El

ued help and coop

erely,

Wyvetter Younge, Di

EAST ST. LOUIS ADVISORY AND DEVELOPMENT
NON-PROFIT HOUSING CORPORATION
...ge
...rector
NORTHCENTRAL BANK BUILDING
EAST ST. LOUIS, ILLINOIS 62201 Phone (618) 274-2177
2000 State Street

March 2, 1971

RECEIVED MAR - 4 1971 R. BUCKMINSTER FULLER

Dr. R. Buckminster Fuller
Box 909
202 West College
Carbondale, Illinois 62901

Dear Prof. Fuller:

Thank your for you presentation last Thursday night.

May I request, on the behalf of the East St. Louis Plan Commission, that a life size model of your concept be completed. I have written the Park District to request a gift of land in Jones Park by the lake. Mr. Fitzgibbons suggested that a 150' x 150' space would be appropriate.

Survival makes the building of "Old Man River" an imperative.

Thank you again.

Sincerely,

Wyvetter Younge
Wyvetter Younge

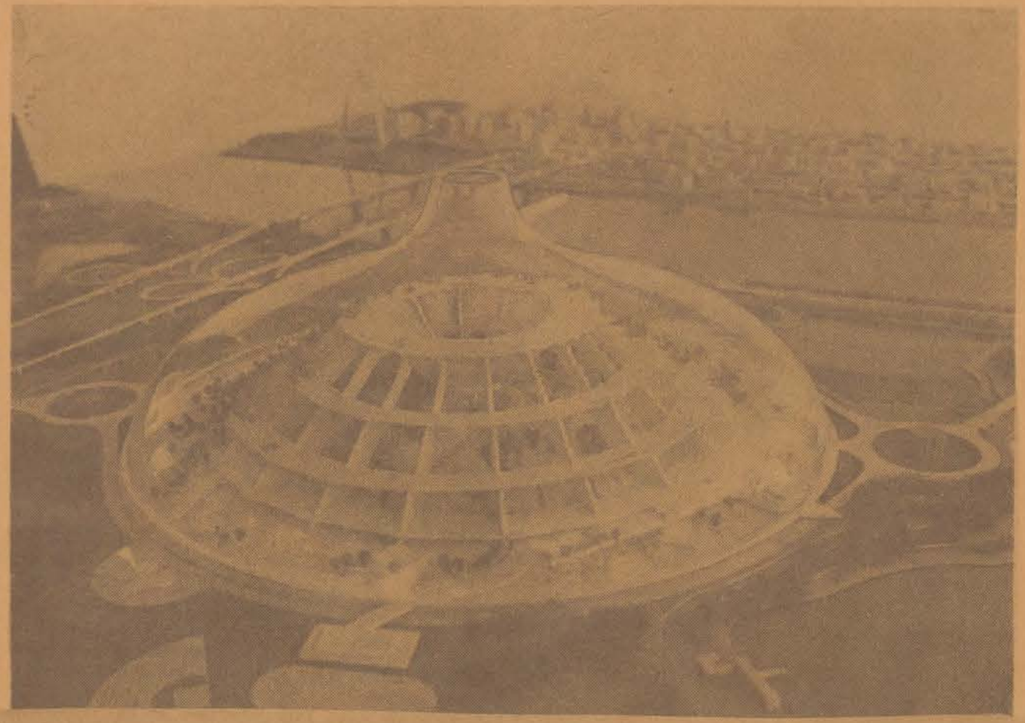
WY/vle

10

ARCHITECTURE: WHY NOT START A CITY WITH AN EVENT?

Here are some facts: in the year 2000 we shall have a population of between 75 million and 85 million: 20 million new citizens who will want jobs, houses, schools and amusements. They will have great expectations. Each year 100,000 people come to London, and most of that 20 million will look towards the south east. When we join Europe the pressures on London and Kent will continuously increase. The same growth of population is taking place in Europe. The great cities are expanding fast: Amsterdam/Rotterdam becoming a single unit, the Ruhr towns merging into a world city, Paris growing explosively. The efficiency of a future European economic structure will depend on its ... commerce. Used in an-
importance of the Channel T... other way, a million pound
dam, the container port at Tl... permanent building would
infrastructures. Our proble... be an asset in any city,
more closely to Europe: m... even after a six-month
needed. ... stint in a world's fair.

Against this great ap- This kind of subsidy is
proaching reality our of course, much more
planners are fighting a important psychologically
rearguard action, holding than economically. By
green belts against the creating involvement we
avalanche of development. generate confidence and
In spite of all their hopes, energy, set ourselves in-
the planning process has ternational standards,
become mainly negative, make the opening dead-
administrative and line a reality. Above all
parochial. we would be making a
It has taken 20 gesture on the scale of
years for the the times. We could make
ten new a world city into an
towns to event. THEO CROSBY
reach *Theo Crosby is a practising*
their *architect. He was responsible for the highly successful industrial section of the British Pavilion at Expo*



Building A Small City Beneath A Dome

MEMO to RBF Mar 26 1972

THE WALK IN MODEL.

A Not For Profit organization 'The O M R Development Corporation has

been formed in East St L to raise money $30,000 ,for the design work on the walk-in -model. The Co-Chairmen are two East St L bank president

Tentative approval has been given to locate the model in a pleasant cit park (We have not made formal applications at this date)

The Park District would benefit because the 120 foot pavilion would revert to them when the model days are over.

Many East St L people are intersted in the fact that this would be East St Ls FIRST tourist attraction in recent history.

The Walk-in Model we estimate will cost about $350,000. Funds are to be looked for from EDA under Training Bill money (For job training), from HUD UNDER experimental Housing, and from local industry.

11

OLD MAN RIVER

THE WALK IN MODEL
JONES PARK, EAST ST LOUIS

VI. Other Costs:	
PRELIMINARY COST ESTIMATE: WALK-IN MODEL OF "OLD MAN RIVER"	
Contingency	25,000
Fees: Architectural, Engineering, etc.	12,000
Insurance, etc.	25,000
	62,000
GRAND TOTAL	319,580

Small-Scale Domed City Planned For East St. Louis

By CHARLENE PROST
of the Post-Dispatch Staff

If all goes well, East St. Louis may have a miniature of R. Buckminster Fuller's Old Man River Project under construction in Jones Park within the next year.

James W. Fitzgibbon, one of Fuller's associates, said last night that the minidome city would be about 50 feet tall and 120 feet in diameter.

He said that five families would live in a terraced, residential half that would include a day-care center, parking facilities, a workshop area and other community facilities. The other half would be a representation of the completed, full-scale $800,000,000 undertaking that Fuller is proposing.

The public would be allowed to visit the $400,000 aluminum and plexiglass miniature. Fitzgibbon said that the East St. Louis Park Commission had given tentative approval to the Jones Park site.

He said that residents, businessmen and community organizations were studying ways of financing the project.

"There are all kinds of government programs that could be available for this," Fitzgibbon said.

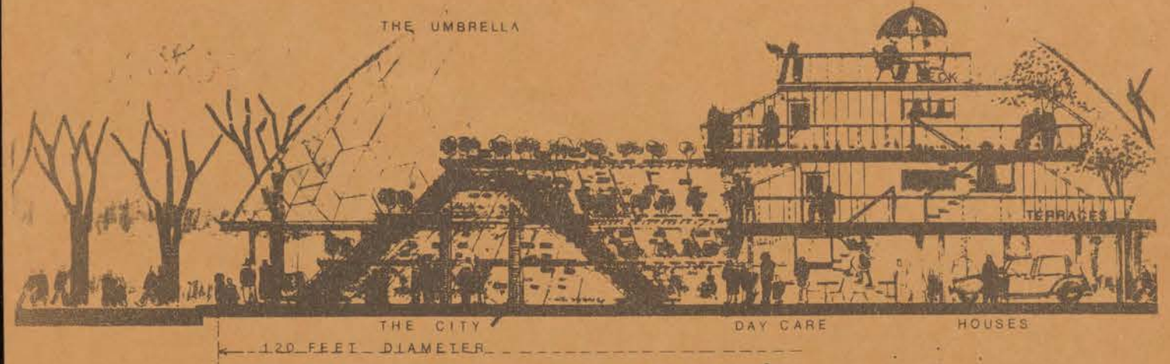
He said he was optimistic that the necessary money could be obtained and that construction could be started within the year. He said that the construction work could be completed in six or seven months.

Sketches of the miniature and full-scale projects were shown to members of the American Institute of Architects and the Engineers Club of St. Louis at a joint meeting at the Engineers Club Building.

Fitzgibbon said that the full-scale project, which would house 12,000 families and an elaborate, ultramodern community beneath a 700-foot transparent dome, lacked financing and a construction timetable.

But, he said, with conventional construction costs rising and space at a premium in many cities, "it's a reasonable solution for the town within a town concept of the future."

Fitzgibbon is professor of architecture at Washington University and president of Synergetics, Inc., an association of architects and engineers.



OLD MAN RIVER

THE WALK IN MODEL

JONES PARK, EAST ST LOUIS

BUCKMINSTER FULLER & ASSOCIATES
1973

IS there a day that you dont drive your car?

WHAT happens outside Your window?

WHAT can You do within walking distance of your house?

MY WORK DEALS WITH HOW TO FIND OUT THE ECOLOGICAL PROBLEMS INVOLVED AND HOW TO SOLVE THEM, HOPING THEREBY TO BRING ABOUT THE OCCUPANTS SATISFACTION AT THE EARLIEST POSSIBLE MOMENT.

Old man River

My feeling is that land ownership is and has been the prime source of wealth for a nation or a people.

I see no way that the residents of Jones Park will profit from leasing in "Old man river". The Jews in Germany thought they were taken advantage of instead they were saved. Take the long view there is no need to feel threatened.

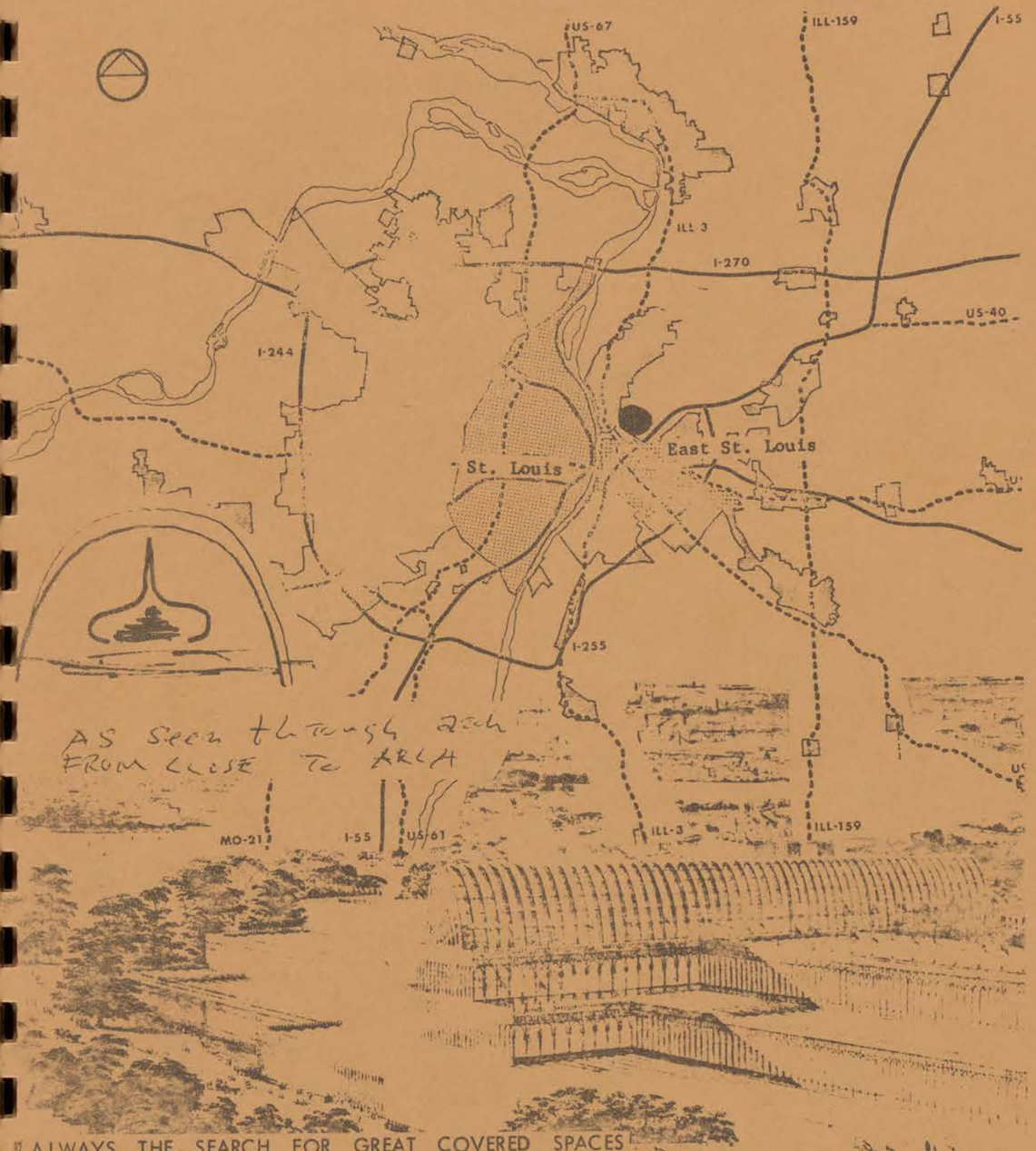
The resident can develop a dependency syndrome unless able to step outside and make the assessment of money & power as it will take in order to be a resident. Upon the building of this. Who will own the land?

Where will many of the inhabitants work? When that there is a 50,000,000 dollar project there on the land of the city, the U.A.P.C. is building outside of Chicago? Why not develop industries of all types for E. St. Louis.

The security of your for self Park people should be absent being would be respected by the Elders

I can't give my approval until the above questions have been answered

EAST ST. LOUIS CITIZEN



ALWAYS THE SEARCH FOR GREAT COVERED SPACES

JOSEPH PAXTON'S ORIGINAL DESIGN ON BLOTTING PAPER.

This research proposal directs a request to the National Science Foundation for funding a combined action and theory, - part program. The research intention is to advance - high technology town-in-town

Research Proposal Submitted to the National Science Foundation

prog... RESEARCH APPLIED TO NATIONAL NEEDS (RANN)

team formed as a joint venture ... St. Louis, Howard University, Washington D. C., and the East St. Louis Community Center Development Corporation.

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

November 5, 1971

Professor James Fitzgibbon
School of Architecture
Washington University
St. Louis, Missouri 63130

Dear Professor Fitzgibbon:

I received your letter of October 27, 1971, and the attached preliminary proposal draft for the Umbrellad City Study. After reading the draft, Dr. Lucas and Dr. Thiel met with me and we had a very interesting discussion. I also talked about your proposal with staff in several other NSF programs.

There is interest in several aspects of the proposal, however, the consensus is clear that I must confirm the discouraging reaction you have already received from Dr. Lucas and Dr. Thiel regarding the submission of a formal proposal.

As to other possible sources of funding, HUD should be interested in discussing this proposal but I am skeptical that they will be. Another possibility is the National Endowment for the Arts where Bill N. Lacy has recently taken over as Program Director for Environment Design. Several statements by Lacy suggest that he is looking for demonstration projects to support and you may wish to send him a copy of your preliminary draft. His Zip no. is Washington, D. C. 20506.

I have familiarity with the space program in the United States and have found that the big contracts given out so far have gone only to large corporations that have dressed themselves up with large staffs of scientists in order to substantiate their lobbying competitive- with the universities. The space scientists, of the successful bidders for space contracts, are given the problem of how to develop the space dwelling. They are not design scientists—they are subjective scientists. Design science must be objective.

able alternative may be realized, in... On the other hand, the architects or students in general fail to gain that initiative within the next five years, then the weapons industry's overwhelming invasion of the livingry field will occur and will swiftly evolve into Huxley's awful dream.

Why is it likely that if the weaponry industry and its scientist-slaves take over the livingry industry, life will move toward Huxley's unhappy dream? And

yours,

immediately preceding.

I am convinced that we are swiftly emerging from the abysmal conformities of yesterday's illiterate, spit-punctuated profanity and monosyllabic verbalism, in which rags, filth, diseased bodies, prevalent stenches, devastating superstition, and local bias reigned supreme. ces

Beginning with World War I, science, technology, and industry began the epochal and ever accelerating...

New Town Over Railroad Yards Is Proposed for 60,000 People

Operation TACLE

Romney Readies a Secret, Supposedly Cheap Plan To Attack Social Ills—and Help Nixon Win Votes

By Monroe W. Karmin
Staff Reporter of The Wall Street Journal

WASHINGTON—George Romney, the urban-policy quarterback for this football-minded administration, has designed a top-secret game plan to help President Nixon score political points with city, suburban and rural voters alike in 1972.

And at little added cost to the federal Treasury.

The plan is labeled Operation TACLE, an acronym for Total American Community Living Environment. It calls for designation by the President of a single federal official (George Romney?) to stimulate locally developed plans to attack social and economic problems on an urban-plus-suburban, regional or broader scale. To Mr. Romney, today's "real city" encompasses the suburbs as well as the inner city. The federal czar would preside over a national competition among local uplift plans and would pick 16 winners to qualify for high-priority financing, perhaps seven of these would come from urban-suburban areas and seven from rural areas.

This approach contrasts with the Democratic-inaugurated emphasis on pouring large amounts and varieties of federal aid into relatively small urban neighborhoods to try to remedy multiple social ailments. Mr. Romney, in effect, is sticking with this comprehensive-planning concept but wants to widen the target zone.

For example, the Secretary of Housing and urban development believes the TACLE competition might well attract a locally developed plan for the synchronized construction of a chain of new communities and large housing developments, linked by a rapid transit system, throughout a central city and its suburbs. In this and other cases, the money would come from private sources and already-authorized public funds.

Something for Everyone

"There is a need to show the nation that a total approach to urban or rural problems can yield results for all Americans—rich and poor, center-city resident and suburbanite and non-metropolitan American—and that a better living environment can be provided on a less costly basis," the Romney blueprint declares.

"There is a need to use federal resources as ... best of our public and ... technical capability, ... and private resources in ... living environments ... before t... The model ... politica... neighbo... posing ... section ... others ... verse ... rural fo... The ... Preside... hold do... Mr. Ro... that do... money... ning for... federal-... annual... ages sli...

Money

This coming ... official... get fro... enterta... see mo... (Romn... resenta... Ano... ing to s... that or... exercis... ious fe... TACLE ... wants ... Presid... Connal... whole ...

Such a unified command was attempted, on a smaller scale, in the Johnson administration's Model Cities program; it ran afoul of bureaucratic jealousies. Mr. Romney's idea is much grander: a joint office, perhaps attached to the Domestic Council, to be headed by a presidential designee with "clear-cut and unquestioned responsibility and authority to execute the program," the TACLE blueprint says in a manner "used successfully by the Atomic Energy Commission ... to carry out the nuclear submarine and rocket programs."

Will Mr. Nixon buy it? "I doubt it," says an urban expert. "Even Johnson didn't really bang heads for urban programs."

Some of the Points

44 ... Federal ... and local go... been started ... industry," ... President. "A varie... building res... wide buildir... varying loca... ments are b... research an... involved ir... goals."

This sum... theme: that federa... have failed to tap fully the energies ... industry, though it has shown increased inter... in urban uplift.

The Mirror Of Public Opinion

Dying Detroit

Ford's $400,000,000 Project May Be Too Late

Laurence G. O'Donnell
In The Wall Street Journal

Henry Ford II's spectacular plan to revive a section of Detroit's downtown riverfront with $400,000,000 of offices, apartments and hotel rooms is giving this dying city some much-needed hope.

The 75-acre complex of high-rise buildings and plazas not only would spark Detroit's economy and give its downtown a long-overdue dash of elegance; it also could give Detroit the psychological boost that would inspire other investors to follow suit. But the question is whether any of this will matter in the long run. For it may well be that the Ford riverfront project—big as it is—is too little too late. That so discouraging a possibility exists in a city like Detroit, which symbolizes success and corporate affluence for the whole world, is an irony.

So is the idea of a Ford coming to the rescue, especially when you recall that it was Mr. Ford's grandfather who made Detroit happen in the first place. Stranger still is that a sizable measure of the blame for Detroit's decline goes to the same big businessmen like Mr. Ford who are now so frantically trying to reverse the tide. The cruel facts of the case are that they, for one reason or another, watched as Detroit crumbled; indeed, in some instances, their corporate decisions hastened the process.

Such a unified command was attempted, on a smaller scale, in the Johnson administration's Model Cities program; it ran afoul of bureaucratic jealousies. Mr. Romney's idea is much grander: a joint office, perhaps attached to the Domestic Council, to be headed by a presidential designee with "clear-cut and unquestioned responsibility and authority to execute the program," the TACLE blueprint says in a manner "used successfully by the Atomic Energy Commission ... to carry out the nuclear submarine and rocket programs."

Will Mr. Nixon buy it? "I doubt it," says an urban expert. "Even Johnson didn't really bang heads for urban programs."

Some of the Points

consequence of trends evident long before 1967 to experts on urban America. Still, the reaction of Detroit's business establishment after the riot may have been the coup de grace. Instead of rallying to the aid of Detroit the city's biggest wheels either joined the stampede to the suburbs, or passively watched it happen. This is not to say that they don't care, or that they did nothing. The New Detroit Committee, formed shortly after the smoke cleared away, included Mr. Ford and the other top auto men and became a model for Urban Coalitions across the country. More recently, another blue-chip panel, Detroit Renaissance, has focused specifically on Detroit's lifeless downtown and tried to get the stadium built. These efforts brought some changes within the auto companies, mainly in the luring practices, resulted in loans of top-notch corporate talent for urban planning projects and triggered a modest flow of funds into small projects. But while these committees were meeting, pondering and planning, the more significant corporate actions were taking place elsewhere. Kresge, one of the nation's largest retail-

The Ford Family's Proposed Riverfront Development In Detroit

THE NEW YORK TIMES, SUNDAY, JANUARY 3, 1972 (SIC)

Government Is Now a Big Landlord in Decaging Inner Cit

port of Vice President Agnew: he expanded ... some of the adi... speech to the Nati...

...tropolitan areas, economic develop- ...e center city by ... a whole series ...rn-in-town developments on non- ...

INSTANT CITY

A cultural phenomenon of the late twentieth century is the gathering together of hundreds of thousands of people for short periods, such as has happened in Washington, D.C., Central Park, Woodstock, and elsewhere. These gatherings become instant cities, and as such require basic services such as sanitary facilities, food distribution, medical services, refuse disposal, water supply, etc. Rarely, if ever, have these services been provided adequately, and in a few isolated cases, loss of life has resulted. This, and other consequences such as hunger, thirst, and pollution - while less serious - can be avoided by proper planning and design of support facilities.

The problem: to design a portable system of modular units to house a comprehensive support system for a three-day city of 400,000. The system is to be trucked to the site, erected by trained crews, manned by trained personnel during the gathering, dis- assembled by the crews and removed from the site, leaving no permanent scarring or pollution of the site or its environs. Specifically, the functions of the system are as follows - water supply, water storage, sewage collection and disposal, medical aid, shelter and evacuation, food storage, food processing and distribution, refuse collection, storage and disposal, communications equipment storage and dispersal, security control and distribution, stage and backdrop, lighting, dressing rooms, shelter for v.i.p.'s.

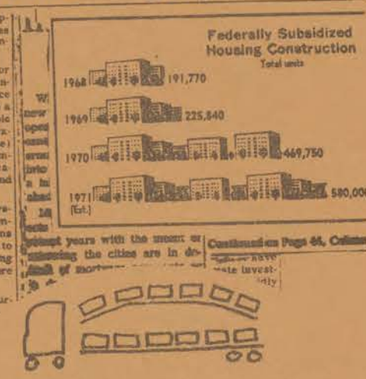
The facilities would travel from a central storage area to any place in the world via common carrier.

The deployment of these facilities would be undertaken by their owners, who might be a large-scale entertainment promotor, like the Electric Circus, or who might be the parks and recreation department of a large city, such as New York.

...nt of one or ...growth cen... in advance ...gree with a ...ch a whole ...n and ex... (These) ...l telecom... ...munica... ...pping and ...

...ology sys... ...m to deter... ...f systems ...cilities to ...r meeting ...h, culture ...

...ate insur...



...without years with the intent of ...ishing the cities are in de... ...Continued on Page 46, Column ...

24 medical facilities units delivered by 2 auto-carrier trailers.

Steve Arnn Larry Bogdanow Dan Boxx Hill Burgess Al Cantor Jeanne Downing Rick Fair Jon Fels Berenice Fossey Virginia Murison John Parman Edwin Quiles Jay Reiter Ed Rice Hannah Roth Norman Spatz Bill Young

WHETHER THE ECONOMIC ADVANTAGES CAN OVERCOME THE ANTI-CHANGE INERTIAS OF LARGE SOCIAL BODIES IN TIME TO AVERT WHOLE WORLD DISASTER IS, HOWEVER, TO BE QUESTIONED. WHEN WHOLE NEW HUMAN SETTLEMENTS ARE TO BE INSTALLED ON VIRGIN SITES AS, FOR INSTANCE, ON THE ANTARCTIC CONTINENT, THE DOMING-OVER MAY BE PROMPTLY REALIZED.

The Case for a Domed City

the geodesic structure describes a conditioned shell, one mile high and two miles in rise protectively over mid-Manhattan

By R. Buckminster Fuller

There are persuasive arguments in favor of cities under single umbrella shells. Whether the economic advantages can overcome the antievolutionary inertias of large social bodies is, however, questionable. When whole new human settlements are to be installed on virgin sites as, for instance, on the Antarctic continent, the doming-over may be realized. The doming-over of established cities in the moderate climates will probably not occur until domed-over cities in virgin lands have proved successful enough to persuade the established cities to employ comprehensive umbrellaing. The established cities will probably not adopt the doming until environmental and other emergencies make it imperative.

A number of advantages are provided by domed-over cities. First is the advantage accruing exclusively to energy quantum changes inherent in size changes and growth rates. When we double the diameter of a dome, its surface area increases fourfold and its volume increases eightfold. This also means that the number of molecules and atoms of the gases of the atmosphere inclosed by the double size dome is multiplied eightfold, while the number of atoms of the shell is multiplied only four-fold.

Variations in atmospheric temperature are caused by increased motion and resultant crowding of the atmospheric molecules. Therefore, each time we double the size of a dome, the amount of surface of the dome through which each molecule of interior atmospheric gas could dissipate its heat is halved; also, the number of molecules able to reach the surface in a given time is halved.

We can say that the larger the dome, the slower the rate of energy loss as heat—that is, when the heat is greater inside than outside; conversely, when the exterior heat is greater, the larger the dome the lower the rate of energy gain as heat from outside is received and transmitted through the dome's surface to the gaseous molecules inside the dome.

The energy conservation of a closed local system improves twofold each time the system's linear dimensions are doubled. This principle is demonstrated in stars and in icebergs. Icebergs can melt only as fast as they can import heat from their surrounding environment of air and ocean through the surface of the iceberg. The larger the iceberg, the lower the ratio of surface area to its volume or mass. However, as icebergs melt, their mass gets smaller at a mathematical velocity of the third power while their surface area decreases only at a velocity of the second power. This is to say the volume decreases much more rapidly than does the surface area, so, as icebergs get smaller, the amount of surface area for each unit of volume of its interior mass increases at an accelerating rate.

Therefore, icebergs melt faster and faster and when the final piece of ice dwindles to pea size it can be seen, by the human eye, to accelerate to extinction. Due to the principle of energy conservation improvement with size, the larger the domed-over city the more stable its atmospheric conditions become, and at ever-decreasing cost per unit of volume.

A second advantage also relates to relative surfaces. When we wish to design a good air-cooled gasoline engine, we design it with many fins, as with the typical motorcycle engine. The greater the external surface the more effectively will the heat be conducted from the small interior to the large exterior surface. Though it would be impractical from a service viewpoint, the surface of the air-cooled engine could be further increased by modifying the same amount of metal, used in the fins, to take the form of spines or spindles like the quills of a porcupine.

If one looks at an aerial photograph of Manhattan Island, New York, there is seen just such a spined, or spindled, high-speed cooling system. The energy consumed by New York City to heat it in winter and cool it in summer is employed in a structural system that operates most effectively in the swift release of the energy to the surrounding atmosphere. There is no structural method of inclosing the circulation space of the city's dwellers that is more effective in wasting heating and cooling energy than that structural system employed by New York and other skyscraper cities of the world. Spheres inclose the most volume with the least surface and, as we have seen before, the larger the sphere the lower the ratio of surface atoms to inclosed atmospheric atoms.

A dome over mid-Manhattan, reaching from the Hudson to the East river at Forty-second street, on its east-west axis, and from Twenty-second to Sixty-fourth street on its north-south axis, would consist of a hemisphere two miles in diameter and one mile high at its center. The peak of the Empire State building's television tower would reach only a third of the distance from the street to the domed surface above it. The total surface of the dome is just twice that of the base area of Manhattan that it would occupy.

A cube has six square faces. If we build a cubical building on a square of land, five of its six faces are exposed to the air. If we build a square-based building, two cubes high, the exposed vertical and top surfaces of the building are exactly nine times the area of the land occupied by its base. If the building is 10 times as high as the edge of its square base, its exposed vertical and top surfaces are 41 times the area occupied by its base. If 20 stories high, it is 81 times the base area.

Using such calculations and taking an inventory of the building heights in each of the city blocks of midtown Manhattan that would be covered by the dome, we find that the total surface of the dome is only one fiftieth of the total exposed surface areas of the buildings which it would cover. The energy losses of midtown Manhattan, under such a dome, would be reduced approximately fiftyfold and the energy lost through the building walls, during both the heated winter and air-cooled summer conditions, would not be lost to the outer atmosphere but lost only to the controlled interior environment of the dome, and therefore could not be considered as lost. We have already learned of the extraordinary energy conservation of big domes, so that the very moderate temperature level the dome would be effectively maintained, with energy savings to the city and its inhabitants of probably better than 90 per cent as against the undomed conditions.

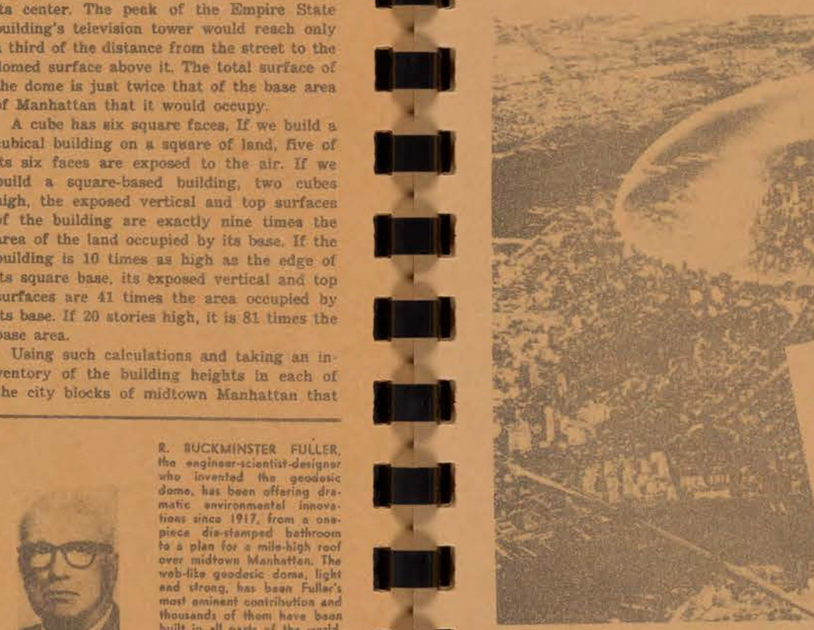
The cost of snow removal in New York City would pay for the dome in 10 years.

Studies made at the Snow Institute of Japan and by Mitsubishi Co. (the General Electric of Japan) indicate the cost of heating the surface of the domes. With electric resistance wires bedded in the skin, to maintain a temperature sufficient to melt snow and ice with the electric heat turned on only during the time of snow and ice formation, for cities in the snowfall magnitude of New York—would be far less than the cost of amortizing the expense of the additional structure necessary to support the cumulative snow loads throughout the winter months.

When rain falls on New York City and its counterparts around the world, it runs down the buildings into the streets, then into the gutters and on to the sewers to be polluted with all the other waters. Year after year New York and other cities have suffered water shortages, though they are deluged with summer thundershowers when enough water falls to take care of the city for days. With a domed-over city, both the melted snow water and the rain would run neatly to a guttering, clear of the pollution of the streets, down into a canal around the dome's lower rim from whence it would flow to great collecting reservoirs. There would be enough altitude in the dome to cause the water to flow gravitationally back to the storage reservoirs in Westchester.

Because the energy losses would be so greatly reduced for the covered portion of the city, the heating and cooling could be handled most economically by electrical energy wired in from generators far from the domed-over city. A new ultra-high-voltage electrical conducting system will soon bring New York electrical energy, by wire, all the way from the Pennsylvania Hills, where the coal is to be mined and burnt in steam-driven electric generators at the mine mouths. This will eliminate all fumes from the atmosphere covered by the dome. The dome would also be able to umbrella away the fumes occurring outside the dome and originating inside the satellite industrial areas.

Those who have had the pleasure of walking through the great skylighted arcades, such as the one in Milan, Italy, are familiar with the delights of covered city streets in which it is practical to have outdoor restaurants and exhibits. They will be able to envision the arcaded effect of a domed-over city in which windows may be open the year round, gardens in bloom and general displays practical in the dust-free atmosphere. The daylight will be bright inside the domes, without direct sun. All the part of the dome through which the sun does not shine directly will be transparent. These domed-over cities in the northern hemisphere will have the southern part of the dome, which receives the approximately perpendicular rays of the sun, protected in summer by polarized glass so that the dome will not gain heat during the sunny hours. In the winter the sun will be allowed to penetrate, to impound the sun's energy.



The Fuller dome, as it would appear if installed over central Manhattan island

R. BUCKMINSTER FULLER, the engineer-scientist-designer who invented the geodesic dome, has been offering dramatic environmental innovations since 1917, from a one-piece die-stamped bathroom to a plan for a mile-high roof over midtown Manhattan. The web-like geodesic dome, light and strong, has been Fuller's most eminent contribution and thousands of them have been built in all parts of the world. Fuller is associated with Southern Illinois University, Carbondale, where he lives in a geodesic dome.

Art by ARTHUR OSVER

THE DOMING-OVER OF ESTABLISHED CITIES IN THE MODERATE CLIMATES WILL PROBABLY NOT OCCUR UNTIL DOMED-OVER CITIES IN VIRGIN LANDS HAVE PROVED SUCCESSFUL ENOUGH TO PERSUADE THE ESTABLISHED CITIES TO EMPLOY COMPREHENSIVE UMBRELLA-ING.

World attention would turn toward East St. Louis if this dome-covered city of 30,000 to 40,000 were to rise on the riverfront

Buckminster Fuller's idea for riverfront: Transparent dome over homes on terraces

By DONALD E. FRANKLIN
Of the Post-Dispatch Staff

GETTING AWAY from the smog, the filth and the urban environmental clutter is becoming increasingly difficult, especially for people stuck in a midwestern industrial center like St. Louis.

There still are places to go but if one's livelihood is earned here the respite must be of short duration. And the cost. To really get away from things it takes a trip to the Southwest, to the few areas of the East and West Coast still habitable, a Caribbean cruise or some other place outside the country.

Imagine then if in some future time St. Louisans could escape their environmental problems simply by walking, driving or riding across the river to East St. Louis! St. Louisans always have looked down their noses at the East Side but if R. Buckminster Fuller's idea should ever come to fruition the pendulum could swing.

Fuller, philosopher and architect-in-residence at Southern Illinois University, believes East St. Louis could become a controlled utopia by putting it under glass — a huge dome that would isolate it from at least some of the woes now besetting it.

Fuller believes that the end of environmental pollution, which contributes so much to man's frustrations, would even ease racial tension, traffic jams, crime in the street and other urban offshoots.

A group of East St. Louisans not only believe Fuller's idea is good; they believe it can be made to work. All that is needed, say, is that a considerable amount of world's resources and technology be brought to bear on making life in East St. Louis more creative and enjoyable. Under the dome, of course.

THE DOME PROJECT at this time has nothing much more than a code name. It is called Old Man River.

"Old Man River will show us the way to build harmonious, beautiful, and esthetically pleasing cities that people can live in," declared Mrs. Wyvetter Younge, former chairman of the East St. Louis Planning Commission.

"There has to be a different, novel and drastic answer to improve human living."

Mrs. Younge is the foremost advocate of Fuller's proposal and an admirer of his philosophy.

The new community, which would take at least 20 years to build, would have about 40,000 residents. Current construction cost estimates range from $500,000,000 to a billion dollars.

ACCORDING TO Fuller's plans, the inhabitants would be protected from the elements by an umbrella-like plexiglas dome.

Under the dome, homes and apartments of many different shapes would be arranged on terraces sloping up the side of a "hollow mountain." Fuller proposes initial construction of 8500 living units.

Inside and beneath the "mountain" would be space for recreation, commercial enterprizes, light industry, shopping, pubs, schools, promenades, a 150-bed hospital and parking facilities. Pedestrians would have the use of a mini-transportation system employing golf cart-type vehicles.

The structure would occupy a 150-acre site just north of the Veterans Bridge. The dome, which is to be a half-mile in diameter, would rise about 900 feet overlooking the Mississippi River.

"This would be like living on a tropical island, "proclaimed James W. Fitzgibbon, professor of architecture at Washington University, and an associate of Fuller.

HE EXPLAINED that automatically controlled louvers on the outside of the dome would reflect sunlight in the summer to cool the inside atmosphere. In winter, sunlight through the clear dome would warm the air beneath.

An aperture at the top of the dome combined with open spaces at ground level would form a natural ventilation system. All of this would create an ideal pollution-free environment, Fitzgibbon said.

Fitzgibbon, Mrs. Younge and other supporters of Old Man River met last week with the East St. Louis Park Commission to advise its members of progress on the project and to request permission to build a 42-foot scale model of the new community in Jones Park.

Mrs. Younge said the walk-in model would give East St. Louis residents a better idea of how the finished project would look and would help dispel notions that the domed city is just a pipe dream.

Although the Park Commission has not yet acted on the request, Mrs. Younge said construction on the model hopefully would start this spring. She estimated the construction cost to be about $250,000. Mrs. Younge is co-chairman of a fund raising committee.

"I BELIEVE that Old Man River will be built because it should be built," she asserted. "The opportunity to improve our environment is presented in this project. All we need is the will to do it."

Mrs. Younge said Fuller's plans should be a community-wide endeavor because it would take a building program of that magnitude to reverse the city's poor economic outlook.

"I am personally committed to Old Man River because my basic aim is to relieve poverty in East St. Louis," Mrs. Younge told a group of community workers recently.

"As a community, we have had just about everything happen to us," she said. "East St. Louis has become an administrative city . . . a city almost entirely supported by the Federal Government."

She said the federal programs have done little to enhance the community's sense of identity and civic pride. On the other hand, Old Man River could be the stimulus to get the city moving in a positive direction, she said.

AS AN EXAMPLE of the physical decay in this predominantly black city, she said, more than 80 per cent of the housing is substandard and the bulldozer is tearing down four times as many houses as are being constructed.

"People hate the cities they live in," Mrs. Younge said. "They are looking for a better and more creative place to live.

"Everybody knows that what's happening now will not produce the kind of environment that poor people are entitled to. Why don't you spend your time working on something that will improve the quality of life?

"You can spend the same amount of time and have the disjointed, disharmonious jungle that we live in now, or you can spent your time working on this beautiful project."

Mrs. Younge argued that it is not necessarily true that new towns must be built in rural areas among trees and green pastures.

SHE AGREED with Fitzgibbon that new communities will have to be built within the limits of present cities. This is because of the almost insurmountable problems created in the suburbs or in rural areas if new developments are contemplated there.

In addition, Fitzgibbon said, suburbanites have demonstrated an unwillingness to accept building programs that include low-income or black families.

Mrs. Younge said in-town developments such as Old Man River would eliminate these problems.

She said the proposed dome-complex would be owned through stock participation by the people who live in the structure and by those with businesses there.

Despite slow progress in arranging financing and in site negotiations with the railroad companies that own the land where the dome would go, Mrs. Younge said the project has won community approval.

"The attitude is 'sure, why not build it," she said.

Wyvetter — this was clearing in O. Mo River

THE CITY POLITIC

BY FRED POWLEDGE

THE URBANIZATION OF STATEN ISLAND

Staten Island, that neglected corner of the city that likes to think of itself as at least semi-rural, is becoming the site of one of the most interesting, if not significant, urban experiments of recent times. There is a proposal—you may have read the announcement—to build a new city on the relatively vacant southern end of the island.

Charles Rouse, the developer of the new town of Columbia, Maryland, and the brain behind the Staten Island proposal, says it would result in "a city with a quality of life superior to anything else in New Yo than that, he says, it v at a time when New Y an example of success

Rouse's track recor certifies him as a res sional, but there are ordinary folk from the pect that the plan migh grab; at attempt by th nicipal evil, who co Rouse proposal, to sei and hand it over to pri

There is also the fear that fancy new development will bring greater population "density" and more "low- and middle-incoming housing," which are code words on the island for Negroes.

All the battle lines are not yet drawn, possibly because few islanders know the details of the plan, been kicking around l legislation has been in bany, and the people a idly now: mimeograp starting to appear un windshield wipers.

What makes the Pla not that someone wants there, but that a pro made to take a vast am a major city (in this c cant land in New Yor heard-of things with those things almost tot traditional forms of ment. Of equal signific tainty of what will hap is done. People like Ro latter as "trend" develo things drift along by the development in much c already means countles boxes on 40-by-100-fo little open space, inadequate transportation, and overloaded sewers.

The city, which figures its own holdings in South Richmond at about 45 per cent of the area's 7,300 acres, or $75-million worth of land, paid the Rouse Company $530,000 in 1969 to undertake an economic feasibility study. Rouse was the logical choice because it has been so successful. The company started in 1939 as a Baltimore mortgage banking firm, then got into shopping center development. In 1963 '7-

WILLIAM ZECKENDORF

TELEPHONE PLAZA 9 7800

November 24, 1971

Mr. James Fitzgibbon
6927 Waterman Street
University City, Missouri 63130

Dear Mr. Fitzgibbon:

I have been referred to you by Herman Wolfe, of Carbondale, Illinois, an associate of Buckminster Fuller.

Mr. Wolfe said that you might be kind enough to supply me with photographs, plans, or anything else that might be helpful in promulgation of our efforts for a major horticultural dome to cover an entire city. Mr. Fuller is our colleague in this matter. We are working with him towards initiating the first of such projects at Hackensack Meadows, New Jersey.

Your assistance in this matter will be very helpful.

Sincerely,

383 Madison Avenue
New York, N. Y. 10017

The new city would contain 300,000 to 400,000 residents. An industrial site would be built along the western boundary. Twenty per cent of the land would be open space. There would be a new downtown which would serve a dozen villages of 35,000 to 40,000 people each; each village would be divided into six neighborhoods of about 6,000 inhabitants. As in Columbia, the neighborhood centers would contain elementary schools, basic recreational facilities, and convenience shopping. At the village and city levels the services would become more elaborate. As in Columbia, housing would be a mixture of one-family homes, townhouses, and apartments, in a variety of price ranges. Housing density, says Rouse, would be no greater than South Richmond would experience under [illegible] would be far

it could all be done "without a dollar from New York City" and by the end of the century the project would have turned over a billion dolllars in tax revenues.

One important result of all this, says Ed Auerbach, Rouse's project coordinator on the island, would be "to show that there is a better way. New York really needs a dramatic success. Not only that, it will also say a great deal for the market. If it can happen in New York City, it can happen anywhere."

It is unthinkable that such an inno-

Build a new city and call it Richmond. Use the existing [illegible],000 a great proportion of which are wooded, and add another 5,000 by filling in the coast along R Bay

DEPARTMENT OF ARCHITECTURE
COLLEGE OF FINE AND APPLIED ARTS · UNIVERSITY OF ILLINOIS · URBANA 61801

August 2, 1972

Professor James W. Fitzgibbon
School of Architecture
Washington University
St. Louis, Missouri 63130

Dear Professor Fitzgibbon:

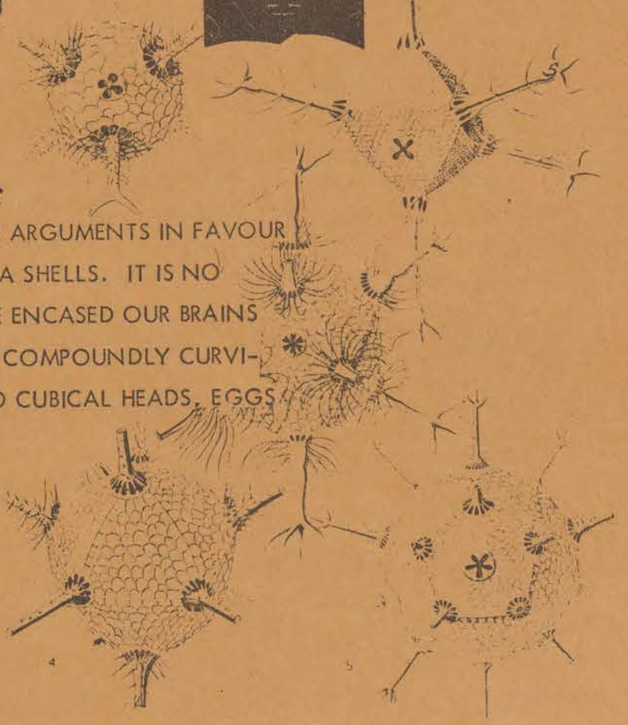
I was thrilled and delighted to get the slides of "Old Man River". It was a tremendous assist, too, that you labeled them.

I do not have any good slides of large open spaces at the moment, but I'll certainly watch for some. The sequence in which I use the slides might be of some help. It begins with Chatsworth Conservatory by Paxton and Burton, 1837-40, where typical plants are the sheltered thing. It doesn't look like much. Then I tell the students that plants obviously aren't people, but once a conception of climate is introduced, you are on the way to an environment for people because climate is the most universal and prevailing factor in an environment. Darwin wasn't about people either. Then we go through the novelty of the acceptance of The Crystal Palace (wasn't it a non-building to viewers then?) and eventually up to The Climatron in St. Louis and on to your "Old Man River," where the moral is repeated once more. I have one other point, which is that Paxton was a kind of resource assessor and so is Buckminster Fuller.

Thanks so much again and I'll begin to watch for the other items.

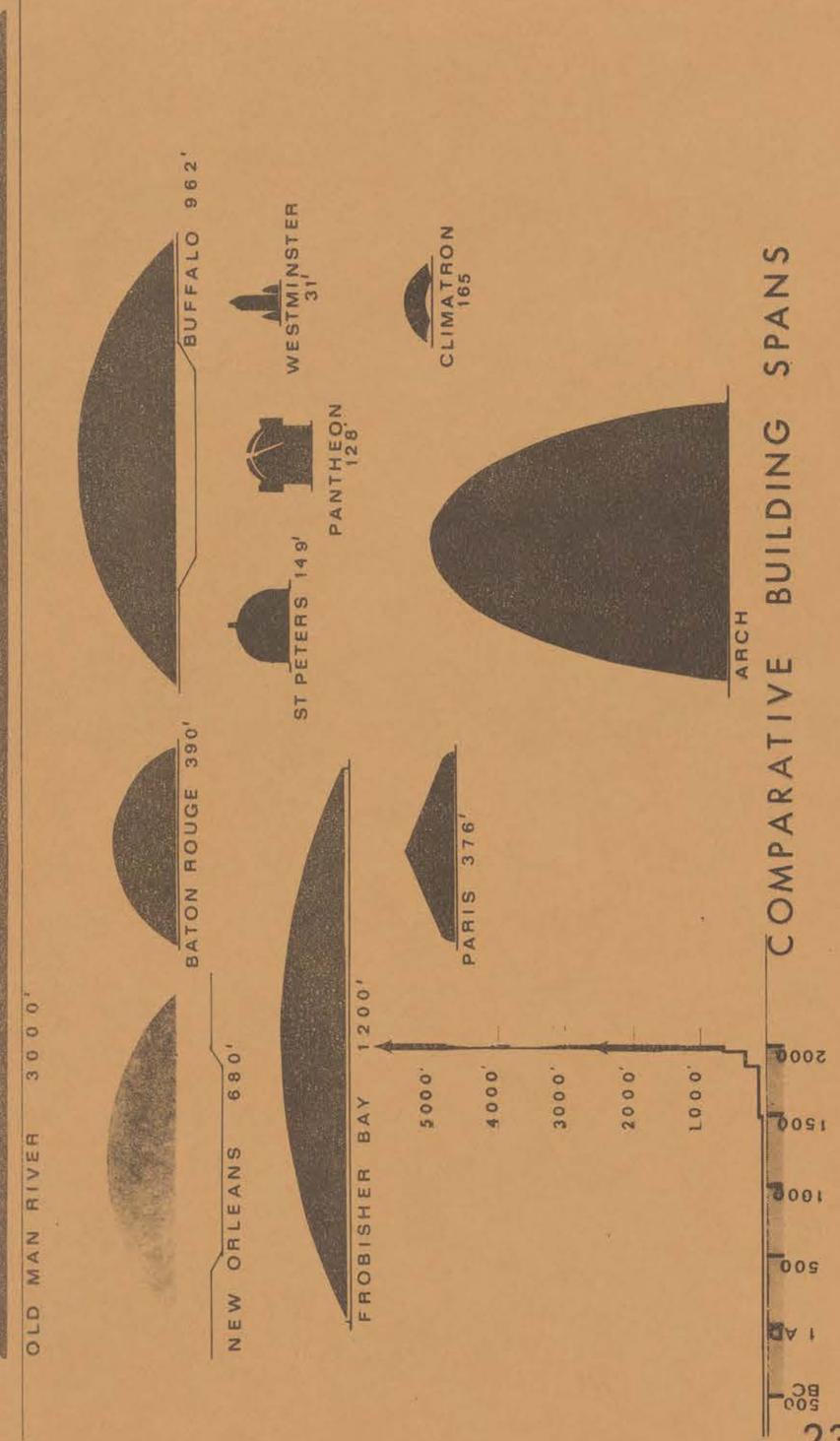
Sincerely,

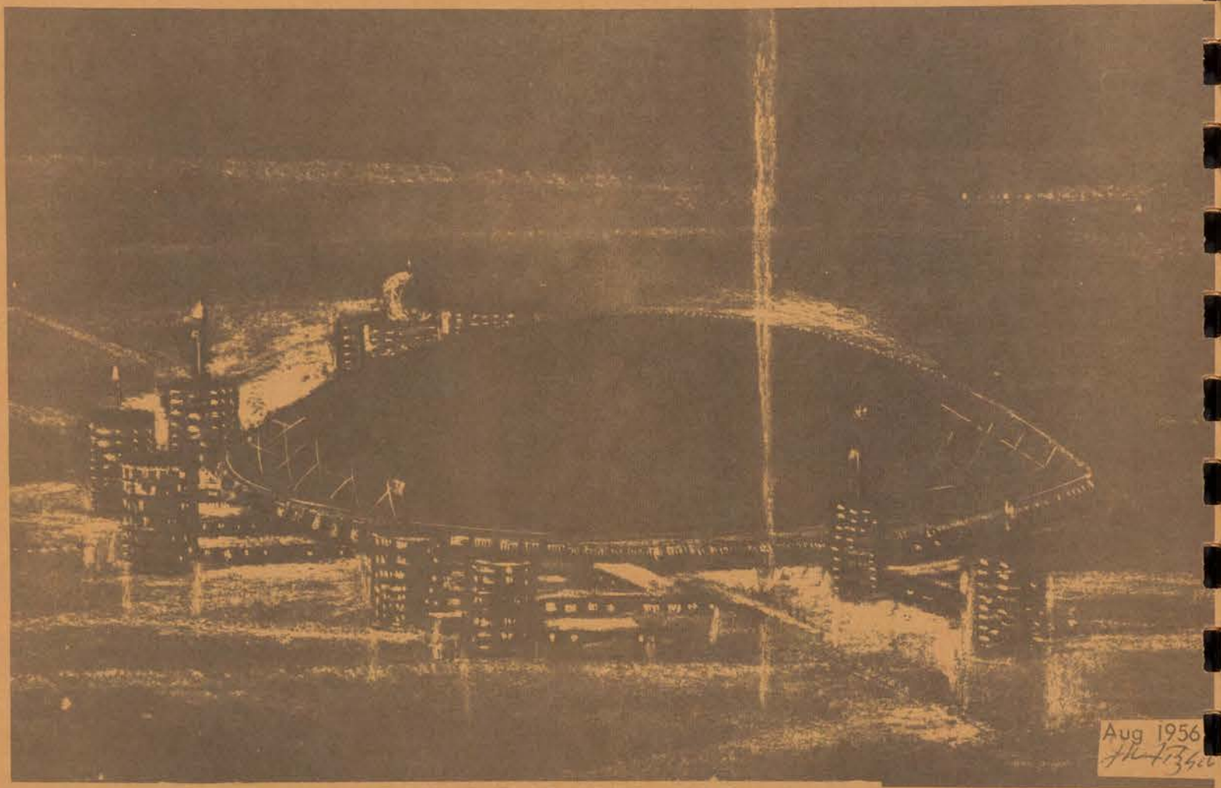
Walter Creese
Professor of Architectural Hi



WITHIN THE SINGLE-SHELLED AREA, AND AS REMOTE FROM IT AS ARE FULL BLOOM FLOWER STAMENS FROM THEIR PETALS, THE COMPLEX, FLOWER, TREE AND SKIRUS EDGED, THIS FIRE-PROOFED CONIC MOUNTAIN OF OPEN TERRACES WILL ARISE. PEOPLE WILL LIVE ON THE OUTER RAMPARTS OF THESE APARTMENTED, TERRACED, LANDSCAPED, AND SKYBREAK COVERED CONIC MOUNTAINS. THE MOUNTAIN WILL CONTAIN WITHIN IT ALL THE SHOPPING CENTRES AND THE METABOLIC AS WELL AS THE PHYSICALLY AND METAPHYSICALLY REGENERATIVE INSTRUMENT-GOVERNED ORGANICS WHICH, IN TURN, WILL CHEMICALLY SEPARATE OUT, FOR INSTANCE, THE H_2O FROM THE WASTE LIQUIDS. YESTERDAY'S AND TODAY'S POLLUTION AND WASTES WILL BE TOMORROW'S PRIME RESOURCES.

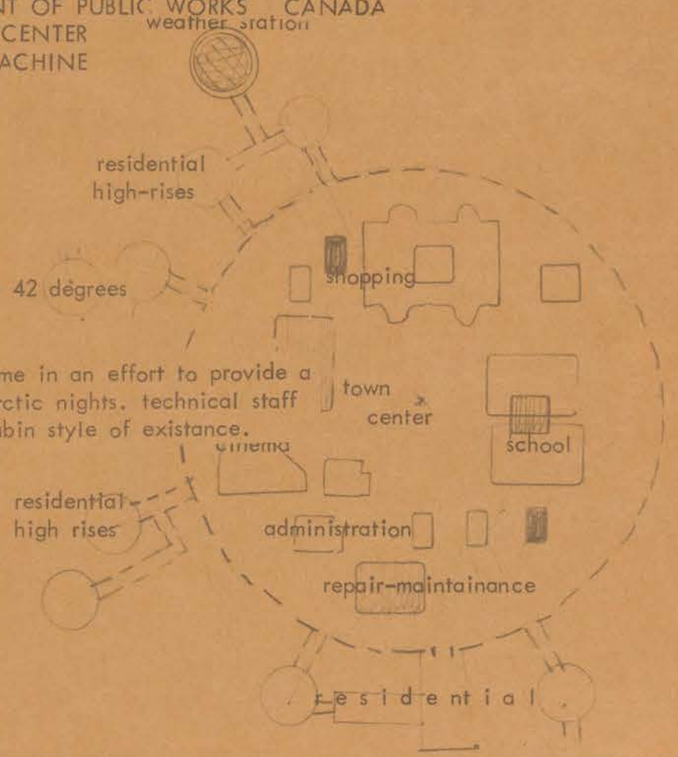
THERE ARE INEXORABLY PERSUASIVE ARGUMENTS IN FAVOUR OF CITIES UNDER SINGLE UMBRELLA SHELLS. IT IS NO AESTHETIC ACCIDENT THAT NATURE ENCASED OUR BRAINS AND REGENERATIVE ORGANICS IN COMPOUNDLY CURVILINEAR STRUCTURES--THERE ARE NO CUBICAL HEADS, EGGS, NUTS, OR PLANETS.



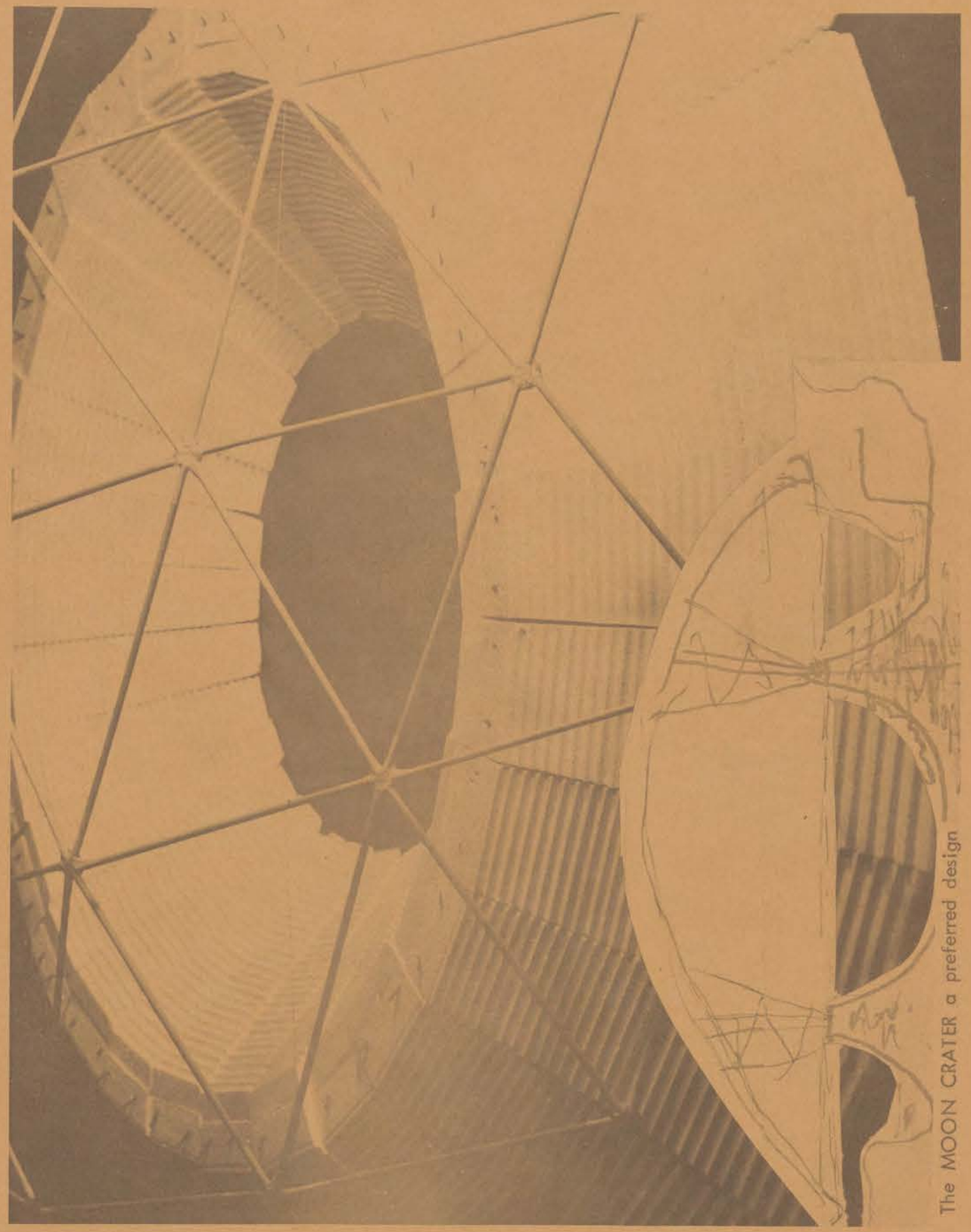


Aug 1956

FROBISHER BAY DEPARTMENT OF PUBLIC WORKS CANADA
1200 FOOT DIAMETER TOWN CENTER
THE NIGHT AND DAY MACHINE



the dome is opaque, unheated
average internal temperature is estimated at 42 degrees
nuclear station power and heat source
frobisher has no permafrost problems
the canadian government proposed this scheme in an effort to provide a diurnal pattern for living during the long arctic nights. technical staff were unable to maintain family life in a cabin style of existance.



The MOON CRATER a preferred design

Copyrighted 1949
by R. Buckminster Fuller

UNIVERSAL REQUIREMENTS OF A DWELLING ADVANTAGE

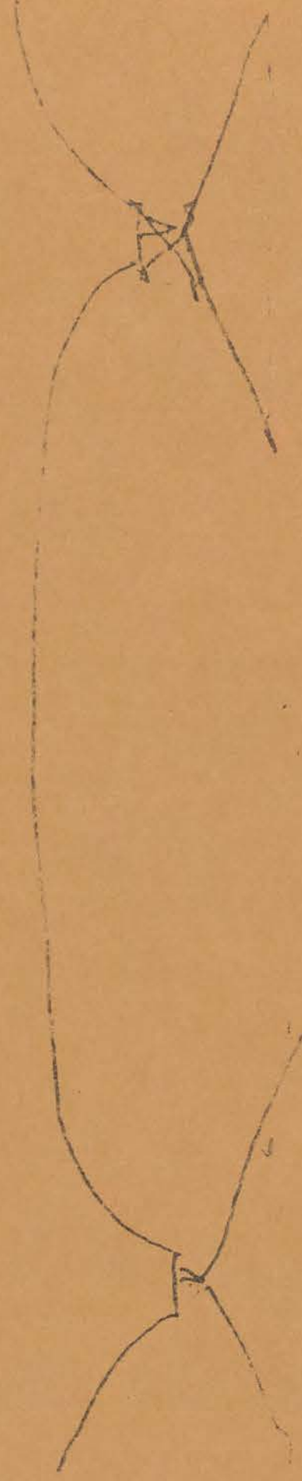
Teleologic Schedule

Check list of the

Universal Design Requirements

of a Scientific Dwelling Facility,--

1. 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, composite, 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 or seepag-



AN R.B.FULLER SKETCH THE MOON CRATER CITY IS INDICATED WITH A N
INVERTED ANGULAR TORUS FORMING A GREAT 'GUTTER' WHICH COVERS THE
HOUSING RING SLOPES AND ADDITIONALLY CARRIES A DOME COVER OVER
THE INNER COMMERCIAL AND RECREATIONAL AREA OF THE CITY.

THE DOME IS NEVER BROUGHT TO THE GROUND.IT IS IN EVERY DESIGN
A TRUE UMBRELLA, BEING OPEN 360 DEGREES AT GROUND LEVEL

STANFORD UNIVI
STANFORD, CALIFORNIA

DEPARTMENT OF OPERATIONS RESEARCH

Cities of the Plain

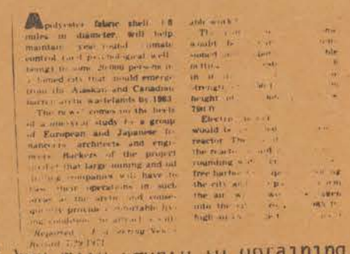
A fresh approach to the urban dilemma was offered last week by David Rockefeller, chairman of the Chase Manhattan Bank, but it was far removed from New York City's immediate woes. His notion: the creation of a corporation to raise $10-billion in private investment to start building, from scratch, 110 new American cities—out in the boondocks.

Citing projections of a 75-million-person population growth by the end of the century, Mr. Rockefeller suggested where many of these newcomers might go: not to the old trouble-ridden urban centers, but to new cities —100 with a population of 100,000; 10 with a population of a million. "If they are well-conceived," he said, "there is no reason why the bulk of the capital should not come from private sources."

Such a program would not be feasible in the New York City area, he said, for the land is not available. Not to mention the private capital.

Domed City For 20,000 Inhabitants In Arctic Region A Reality By 1983

Artist's rendering of domed city for 20,000 persons. Photo courtesy ENR and Institute for Lightweight Structures, Stuttgart, West Germany



Professor James Fitzgibbon
School of Architecture
Washington University
St. Louis, Missouri 63130

Dear Professor Fitzgibbon:

Mr. Shoji Sadao suggested that I contact you with regard to obtaining information about the proposed East St. Louis Project.

Thomas L. Saaty and I have been doing some research on redesign of cities. A feasibility study more along the lines of Operations Research, Socio-economic points of view than archictectural. We currently have a book in preparation called "Compact City". Recently I had an opportunity to discuss with Buckminster Fuller our findings and he, in turn, told me a little about the East St. Louis Project. I would be grateful for any references (detailed or otherwise) you could send me.

Sincerely,

George B. Dantzig

George B. Dantzig
Professor of Operations Research
nd Computer Science

IT BECOMES INTUITIVELY OBVIOUS TO ALL THAT THE SUCCESSFUL EXPERIMENTAL CITY WILL BE UMBRELLAED BY A SINGLE SPHEROIDAL SURFACED DOME BECAUSE OF THE VAST LIVING AND OPERATIONAL EFFICIENCIES THUS TO BE ATTAINED.

Mr Fuller will probably get the same reaction that Eads got when he started building the bridge across the river.

EAST ST LOUIS CITIZENS COMMENT

COST ESTIMATE

Old Man River Project. The Umbrellaed Town-in Town

New Communities Act 1968 Title IV HUD Act 1968 (42 U.S.C. 3901-3911)

Notes on the preparation of the Estimate.

The Estimate is shown on numbered sheet under an itemized list as required by the New Communities Act.

The Project is in a preliminary design stage. No detailed drawings have been prepared. However large scale drawings are extant and several large scale model constructions were available for estimating purposes.

Land.. In one instance a site to be leased or purchased from Railroad interests was considered. The cost is included. In a second instance land now owned by the state was considered. No cost was entered.

Excavation, Piling, Roads, Walks. In each case these were estimated from drawings and models and as both sites are reasonably similar no comparison has to be made. Piles were to be driven 75 feet to rock.

Water Supply, Sewage and Trash Disposal..
A sewage treatment plant is intended. Water supply will be from East St Louis Municipal source with new pumping station. A sum for a central limited trash disposal unit in the new Town is included.

The Real Estate Structure..
This is a term applied to the megastructure frames, elevated house support structure and raised streets. These of Reinforced concrete and were estimated on a $65. cu yd in place average.

Dome Umbrella and Plexiglas Glazing..
This was estimated on a weight of steel per sq ft of surface from several previous large scale dome frames. Steel in truss form with plexiglas exterior surface. $900. per ton erected used as steel price.

Elevators and escalators..
These were estimated following a conference with the Westinghouse Elev engineers. A vertical system with upper exchange levels. Escalators for short distance central area travel.

Residential Construction..
Units estimated to average 800 sq ft. estimated at $10,100 average. $13. per square foot. Certain reductions over out-in-weather construction due to building under dome are included. Amounts to about $3.75 sq ft.

Mechanical-HVAC..
Two central heat and cooling plants are estimated to serve the town.

Lighting...
Lighting estimate is for city streets, civic areas and the two level parking garage under the town.

Civic buildings..
Estimates were made of school requirements, fire, police and administratic area needs. Estimated at $30.00 sq ft

The Transport Terminal.
This is located at city center on the levels of the underground garages Estimated at $30.00 per square foot. Escalators in other item.

Clinic-Hospital..
A small (210) bed unit estimated at $60,000 per bed.

The Garages. Reinforced concrete constructions underlying the entire city area. Estimated at $3,400 per car.

Fees..
Design fees of 5 and 3 % were assessed on the appropriate items. Approximately 5% of $500,000,000.

Finance fees. Interest, finance charges ov various kinds.

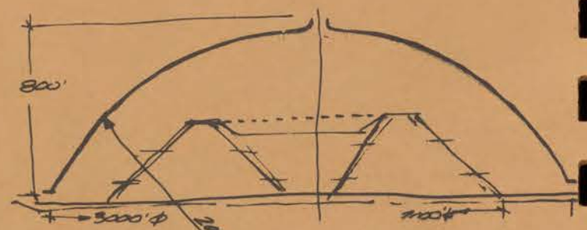
Contingency.. A 12% contingency item was entered. This is modest in view of preliminary state of the design.

Overhead and Profit..
This refers to overhead, tax, administration and profit items that will be charged by all contractors, sub-contractors and others who supply contract services on the above items. This is estimated at 25% of labor and material-normal rates.

EAST ST LOUIS OLD MAN RIVER
summation

TOTAL ACREAGE 500
this includes parks, roads, and recreation areas
ACREAGE UNDER UMBRELLA 170

9,000 families density--500 ACRES 18/acre
170 ACRES 53/acre



TECHNICAL INFORMATION

Diameter of dome enclosure - 3,000 ft (approximately 1/2 mile)

Number of houses & apartments - 9,000

Car parking: Tenants - 16,000
Commercial - 20,000

Height of dome - 800 ft

Commercial area is located in the center of the "Hollow Hill" - from 100,000 sq ft to 7,000,000 sq ft of rental sapce

Surface area = $2\pi RH$
$= 2 \cdot 3.1416 \cdot 2000' \cdot 800'$
$= 10,053,120$ sq ft

Urban Density - approximately 53 families per ground acre (Plaza Square apartments are approximately 57 families per acre)

Automobiles are confined to the enclosed lower parking levels. No autos other than for emergency and large item delivery service are allowed in the city.

Neighborhoods are in blocks of about 90 families and have both electricity to open stair access to auto-free park malls and neighborhood schools and shops.

Temperature range in the dome is expected to be from the 40's on cold winter nights to ordinary summer temperatures.

The bus and transportation terminal is located in the city center with escalators up to the shopping areas.

APARTMENT BUILDER/DEVELOPER CONFERENCE & EXPOSITION
NEW ORLEANS, RIVERGATE EXHIBITION CENTER. SESSION A-3 MONDAY, APRIL 26

PLANNED COMMUNITIES

A totally-planned community should include five land-use sectors: Residential; Industrial; Commercial; Recreation-Open Space and Public/Semi-Public Use.

The following shows the average allocations as of April, 1971 for eight major new communities: St. Charles, Md.; Jonathan, Minn.; Park Forest South, Ill.; Flower Mound, Tex.; Maumelle, Ark.; Columbia, Md.; Reston, Va.; and Irvine, Calif.

The first five of the above are being developed under HUD Title 4 or its 1970 replacement Title 7 -- New Communities.

While these developments range from 5,319 acres to 32,400 acres, their ratios of land use are very similar.

The same master planning principles can and probably should be applied to more modest P.U.D.s both from the standpoint of land use and economic feasibility.

The compilation below was made by Robert M. O'Donnell, president, Harmon, O'Donnell & Hennlnger Inc., Denver, planners for the St. Charles, Md. planned community

--- Wes Wise, Editor
APARTMENT CONSTRUCTION NEWS

AVERAGE LAND USE FACTS: EIGHT MAJOR MASTER PLANNED COMMUNITIES

1. 11,210 average total acres
2. 103,500 average population projection
3. 9.5 average population per acre
4. Land use breakdown, average of eight communities:

	Res.	Indust.	Commercial	Rec-Open	Public
Percent....	50%	14%	6%	20%	11%
Acreage....	6,140	1,320	670	1,880	1,110
Ac/person..	.053	.017	.005	.023	.013

ITEM	DESCRIPTION	COST
LAND - SITE A		20,000.00
- SITE B		C
EXCAVATION - PILING	(In real estate structure)	
ROADS - WALKS	@ $1,500,000 / mile	8,400,00
WATER SUPPLY	and trash disposal	14,000,00
SEWAGE		
LANDSCAPING	Lawns, plants	2,500.00
REAL ESTATE STRUCTURE		64,800.00
DOME & GLAZING		84,300.00
PLEXIGLASS		19,300.00
ELEVATORS - ESCALATORS		24,900.00
RESIDENTIAL CONSTRUCTION	12,000 units (30,000,000)	125,000,00
MECHANICAL HVAC	2 supply units plants @ $3,500,000 ea	7,000,00
LIGHTING	Garages Civic	4,200,00
CIVIC - PUBLIC BUILDINGS	Elementary school	5,000,00
	Jr. - Sr. High	5,100,00
	City administration - police	700,00
	Library, recreation, day-care	6,100,00
TRANSPORT TERMINAL		1,400,00
CLINIC - HOSPITAL	210 beds @ $60,000/bed	12,600,00
GARAGES	@ 3,400 car	71,200,00
CONTINGENCY	@ 12%	95,000,00
ARCH-ENG FEES		23,800,00
OVERHEAD - PROFIT	@ 25%	120,000,00
FINANCE FEES	7% + 3%	70,000,00
Total requirements & expenditures	APPROX TOTAL	787,000,0

A FORM NO. 2328
v. January 1971

U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL HOUSING ADMINISTRATION

Form Approved
Budget Bureau No. 63-R0687

CONTRACTOR'S and/or MORTGAGOR'S
COST BREAKDOWN
(SCHEDULES OF VALUES)

Project No.

Building Identification

ite

onsor

me of Project

INSTRUCTIONS FOR COMPLETING FORM 2328

is farm represents the Contr[illegible]rs and/or M[illegible]
requested. Detailed instru[illegible]

DIV	TRADE ITEM
3	Concrete
4	Masonry
5	Metals
6	Rough Carpentry
6	Finish Carpentry
7	Waterproofing
7	Insulation
7	Roofing
7	Sheet Metal
8	Doors
8	Windows

		NONRESIDENTIAL EXTERIOR LAND IMPROVEMENT (costs included in trade item breakdown)
		COST
39	2	Unusual Site Condition
40		TOTAL LAND IMPRVTS.
41		TOT. STRUCT. & LAND IMPRVTS.
42	1	GENERAL REQUIREMENTS
43		SUBTOTAL (Lines 41 and 42)
44		BUILDER'S OVERHEAD
45		BUILDER'S PROFIT
46		SUBTOTAL (Lines 43 thru 45)
47		
48		OTHER FEES
49		BOND PREMIUM
50		
51		TOTAL FOR ALL IMPROVEM[illegible]
52		Builder's Profit

OFFSITE COSTS (costs not included in trade item breakdown)

DESCRIPTION	EST. COST

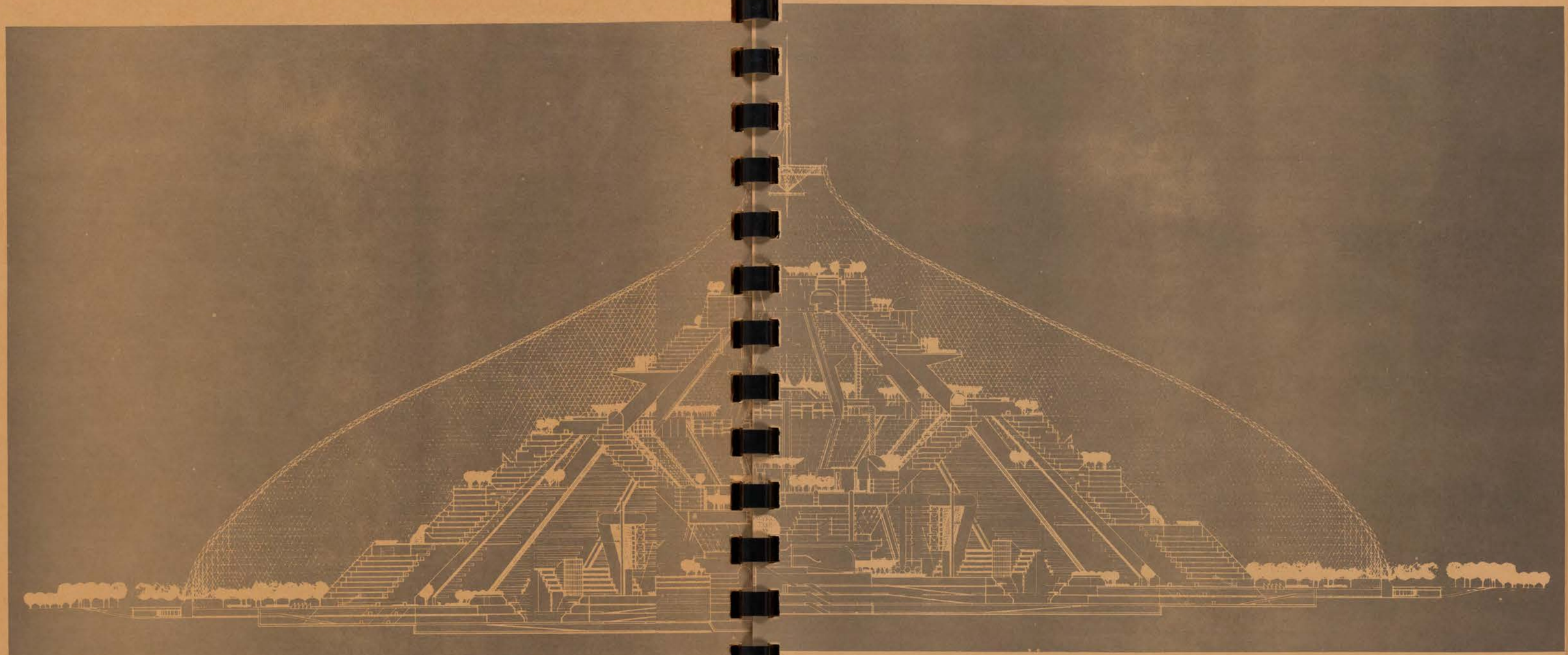
UNUSUAL SITE CONDITIONS. -- This trade item reflects rock and fill, retaining walls, erosion, poor drainage and other o[illegible]

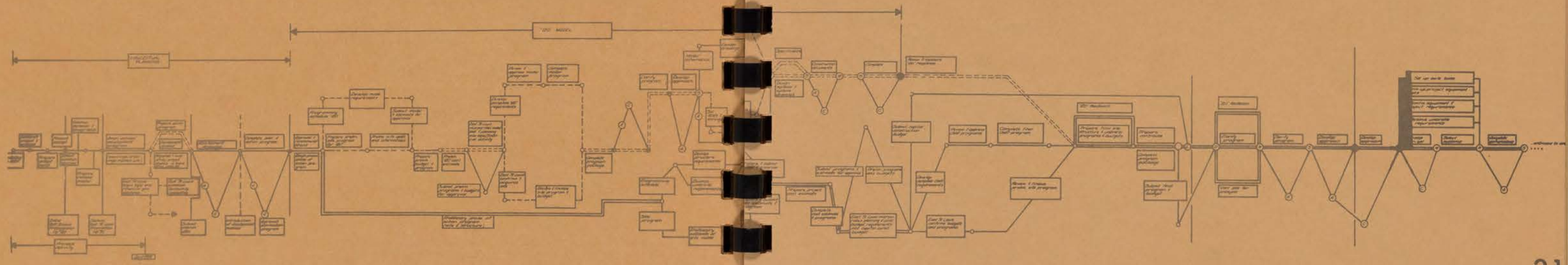
COST. -- Enter the cost being submitted by the Co[illegible] each trade item. These costs will include, as[illegible] tary of Labo[illegible]

(costs not included in [illegible] breakdown)

DESCRIPTION	EST. COST

TOTAL $





U M B R E L L A E C O N O M I C S

Preliminary cost estimates suggest that the economics of dome covering a town must take into consideration the simplifications in construction potential in a large scale covered building area. The ordinarily important and costly problems of wind,waterproofing,air-tightness of joints,

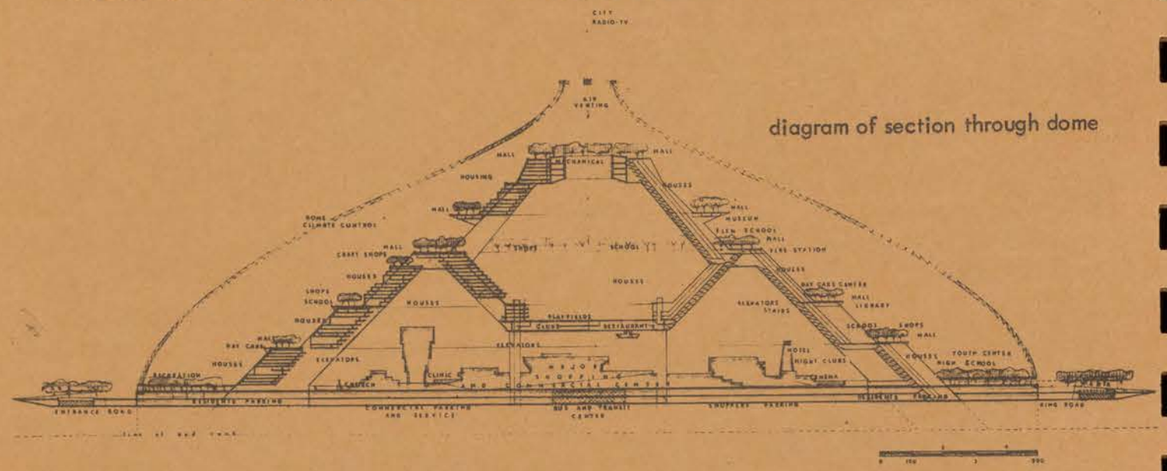


diagram of section through dome

tight corners and junctions are all reduced in a domed town to minor concern. This means that simpler,quicker,less costly ways of connecting building parts such as wassl,corners,'windows',floors and ceilings can be used with certain savings of materials,time and building cost.

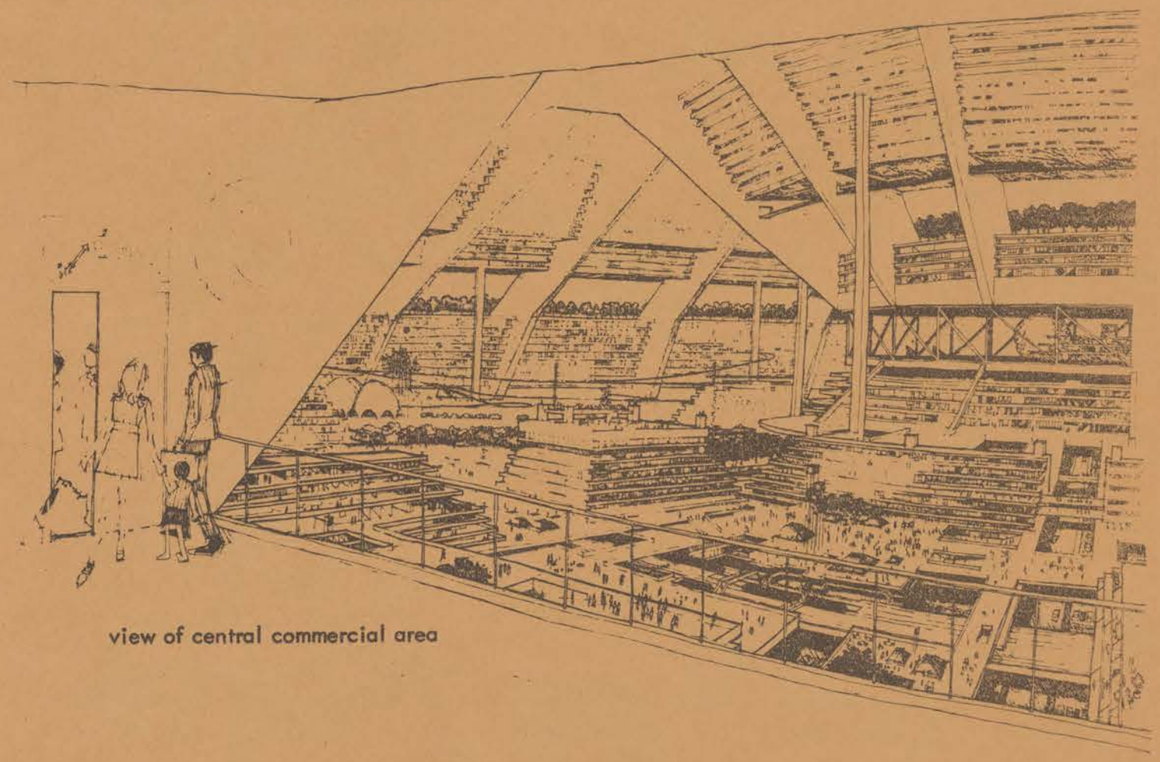
The umbrella should be erected at an early construction stage. Contractors and subs working in the town will be able to further reduce building costs thru accurate and dependable work scheduling.It is always good building weather under the dome.

When these circumstances are taken into account as cost reduction factors it is evident that large sums of money are 'freed' for use in building the community roof.

Residential square footage in OMR is estimated at- 11,000,000
Commercial,Public and Institutional " " 10,000,000

This total of 21,000,000 square feet of building space need to show a cost reduction from 'cut-in-the-weather' construction of only $4.00 a square foot (Say $24 a sq ft reduced from $27 a sq ft) to produce a sum of $84,000,000. which is about the estimated cost of the dome umbrella and glazing.

The long term reduction in maintainance costs in the town due to protection of streets,malls and building surfaces from weather erosion is an added economic advantage.



view of central commercial area

Following the East St. Louis City Council request to RBF to submit a concept proposal for the Riverfront, Mr. Fuller determined on an approach which would recognize the necessity of a major project attempt to recover for East St. Louis a missing sense of community and civic pride and identity. This was to be an effort to make for East St. Louis a large scale civic-community venture which would be:

(1) a comprehensive town, built within the city limits

(2) a project which would involve the best available environmental information and embody the best technological procedures directed toward a good life for all the people who would live in this town and in the area surrounding it.

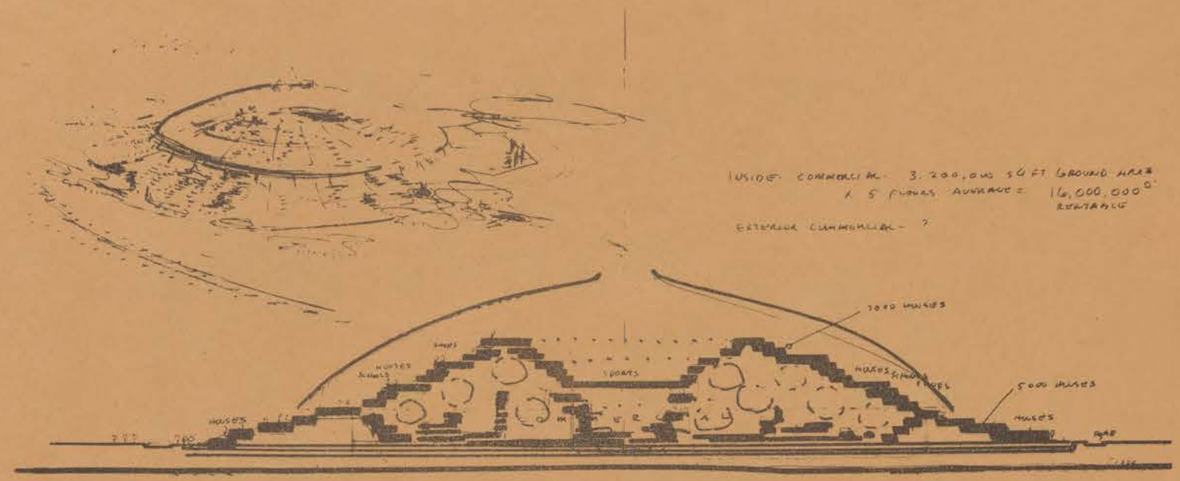
(3) a source of civic pride and identity, which in turn would tend to attract people, tourist interest, businesses and capital investment in both the new town and in the region.

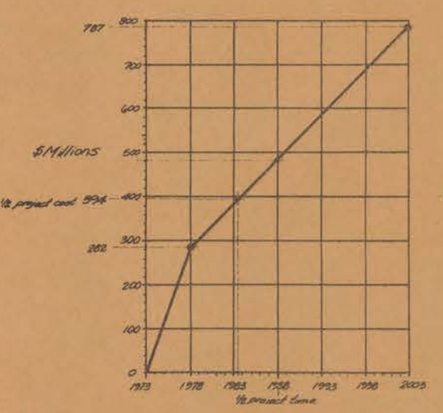
(4) a demonstration that people could study, think about, and be involved in the design and accomplishment of a town and its promises of a decent living environment for its people.

The project required in this preliminary concept stage the adoption of several working assumptions. These would be employed until further or better information called for changes in this base data. First an assumption that the town would be designed for approximately 9,000 families. Second, that it would be designed to exist under a glazed, sun controlling, weather-temperature controlling umbrella. And that the initial design would have houses of all kinds arranged in terraces sloping up the side of a 'hollow mountain,' the inner mountain slope would have community sports and group functions and both within and under the mountain and the city would be commercial enterprises, light industry, shopping, transport facilities. And that we would take advantage of the U.S. Government proposals to aid in the removal of the existing railroads and extend the Jefferson Archway Park along the East riverfront--to place this environment town within a park itself as an extension of the government park. The density proposed is approximately 55 families per acre, about the same density as the Plaza Square Apartments in St. Louis.

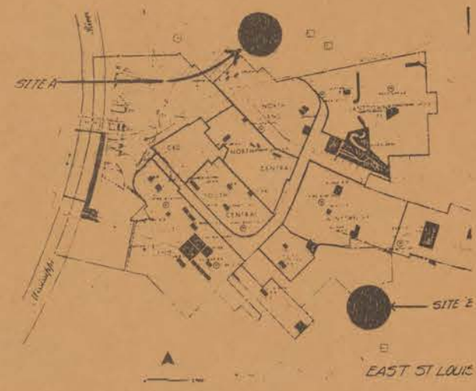
Care was to be taken that this domed town and the St. Louis Arch complemented each other in relationship to bridges, axial direction and placement in respect to each other.

Certain cost estimates made by major corporations for conventional new towns in the U.S. indicated that towns of 80,000 to 100,000 population projected in the U.S.A. were being costed at about one billion dollars. This included land and development costs, improvements, roads, streets, walks, water, sewers, drainage, town administration and services, landscaping, all buildings, housing, commercial, civic, schools, fire stations, etc., etc.





EXPENDITURES



The East St. Louis new town being about one-half this population, we adopted a preliminary cost magnitude of approximately one-half billion dollars. A further assumption based on certain large scale construction experience indicated that the building time required would be from 10 to 20 years and that the capital input would be spread over that period.

Some estimates of materials involved indicate large magnitudes of certain items, over 200 acres of plexiglas or glass, 2,000 miles of framing steel beams, tens of thousands of plumbing items, electrical appliances and similar large magnitude material requirements. It can be expected that American industries will very likely use these large magnitude opportunities to expand branch supply, assembly and distribution facilities in the East St. Louis area. It can be also estimated that labor costs in any construction approximate 50% of total capital costs and this large sum must be translated into job requirements during the construction phases.

ST. LOUIS GLOBE

BUT E. ST. LOUIS DOME PLAN STAYS ALIVE

Fuller, 'The Man With The Options,' Takes Post With Pennsylvania U.

THE ST. LOUIS AREA will lose its most famous thinker-in-residence this fall when R. Buckminster Fuller moves to Philadelphia and a post with the University of Pennsylvania.

The philosopher-mathematician-engineer, who has been living in Carbondale, Ill., in one of the geodesic domes he invented, had taught at Southern Illinois University's Carbondale campus for 13 years.

He is not leaving the community completely. He will maintain his office on the Edwardsville campus, and return to lecture several weeks each year, according to John Rendleman, president of SIU-Edwardsville.

Fuller himself was incommunicado this week, recharging his incredible 77-year-old batteries off Bear Island, at sea in Penobscot Bay, Maine, aboard his 41-foot sloop "Intuition" which is also the title of his new book.

Before accepting the Pennsylvania post, Fuller, "a city person," nearly became a St. Louisan. He chose a house in Hortense Place in the central West End, and the deal was almost completed when the owner, learning that one of the world's most famous architects was the prospective buyer, suddenly changed his mind, saying, "If people like Buckminster Fuller want to move to Hortense Place, I'd be crazy to sell."

Fuller then considered buying a house on Forsyth boulevard across the street from Washington University, where his associate on the geodesic dome plan for East St. Louis, James Fitzgibbon, is professor of architecture.

AS USUAL with Fuller, personal friendships played a great role in the Pennsylvania move. He had first lectured at Carbondale in 1956, in a program sponsored by the design department, which was headed by Harold Coheen, a former student.

He was persuaded to return in 1959 by SIU's former president, Delyte Morris, as research professor in design there, directing graduate students in advanced design projects. When Morris resigned last year — it seemed only a matter of time until Fuller would leave, too. He officially severed ties with SIU-Carbondale last July.

The president of Pennsylvania University, Martin Meyerson, is a personal friend, as is Stephen Benedict, the Rockefeller Brothers Fund associate, who is helping to put the Penn package together.

St. Louis friends worked to keep him here. "We tried to get him," admitted a Washington University architecture professor, "but we were too slow."

Once dismissed as a crackpot inventor, more recently hailed as "the man with the options" and the first futurist, Fuller's fertile imagination is at play in vastly differing projects in many parts of the world — from India, where he is design consultant on three international airports, to East St. Louis, where he has proposed a dome-covered, moon crater of a city for 9,000 families.

"OLD MAN RIVER," as the project is code-named, would shelter a small city on the northern edge of East St. Louis with an umbrella-like dome hovering 30 feet off the ground. Terraced apartments would be staggered on the outer slopes of what looks like a moon crater, in ten-story tiers divided by streets, while a complex of civic, cultural, educational, commercial and light industrial facilities would be contained inside.

Plans provide for parking, sewers, fire protection. And no automobiles would be allowed on the city's streets-in-the-sky; instead its residents would use a transportation system of golf-cart-type vehicles.

Fitzgibbon said a 120-foot model is planned, to give East St. Louisans some idea of what the domed city would be like.

He said he is confident that such a city will be built "when the crisis in the American city deepens more. They need a new town," he said of East St. Louis, "but it will take that deepening crisis to make that need urgent, and an organization, a municipal and state authority, to lead in applying for funds and authorizing the final preparation of the project."

Thus far, Fuller himself has poured thousands of dollars into his brainchild, and Fitzgibbon said the next step will have to come from East St. Louis. Both federal and private money must be provided, he said, if Old Man River is to be more than an $800 million pipe dream.

AT PENNSYLVANIA, physical facilities for Fuller's work will be provided by the University City Science Center, a consortium of 17 universities in the Delaware-Greater Philadelphia area.

"He hasn't even been given a title yet," said a spokesman for the president's office at the University of Pennsylvania. "We want to make it (the job) a long-term commitment. There is still a lot to be worked out, such as his relationship to the Desi Institute (the W based corporation formed earlier thi carry on his work)."

THE PHILOSOPI tiny, wiry man b Man River and oth ly-ambitious projec down in Fuller's n book, "Intuition."

In form it is a poems occasione launching of his sl same name.

ST. LOUIS POST-DISPATCH

CITY UNDER GLASS: A model of the half-mile-in-diameter plexiglas domed city proposed by R. Buckminster Fuller. In the background is the Veterans Memorial Bridge and, across the Mississippi River, St. Louis. (Post-Dispatch Photo)

EAST SIDE GLASS HOUSE: A model of the umbrella dome designed by R. minster Fuller that is expected to be constructed on a small scale this year in E. Louis. (Post-Dispatch Photo)

THE IMPLEMENTATION OF

OLD MAN RIVER

Professor R. Fuchs

Administrative Law Seminar
Washington University
School of Law

First Draft
December 1st, 1971

Submitted by:

Wyvetter Younge

PART I.

OUTLINE

1. Introduction 1
2. Description of Old Man River 2
3. Cost estimates of Old Man River 3
4. Legal Structure to Implement Old Man River 8
5. (a) A Public Non-Profit Corporation 8
   (b) A For Profit Corporation of Limited Partnership, Nature of 12
   (c) Private Placement Memorandum 13

Part II.

6. Laws of the State of Illinois that will Implement Old Man River 21
   (a) Powers given to Municipality, Ill. Rev. Stat. 67/2, Sec. 3 21
   (b) Powers of Housing Authority created by Municipality 22
   (c) Powers given by statute to a municipality to proceed with public improvement projects 23
   (d) Power granted Municipality to issue bonds 24
   (e) Statute establishing the Illinois Housing Development Authority 24
   (f) Powers granted to the Illinois Housing Development Authority 25
   (g) Authority of Illinois Housing Development Authority to make loans to Limited Dividend Entities 25

Part III.

7. Laws of the Federal Government that will Implement Old Man River 25
   (a) The National Housing Partnership Act, Title IX, Housing Act of 1968 25
      I. Powers of 25
      II. Participation Requirement 26
      III. Authority granted to participate in demonstrations, and research 27
   (b) The Slum Clearance and Urban Renewal Act, 42, U.S.C.A Ch. 8 28
      I. Neighborhood Development Program 28
      II. Grants for Low and Moderate Income Housing in Open Space 29
      III. Use of Air Rights Sites for Educational Facilities 30
      IV. Water and Sewer Facilities Program 31
      V. Feasibility studies for Public Works Planning Advances 32

PART III.

   (c) Model Cities Legislation 33
   (d) Federal National Mortgage Association and Government Mortgage Association 35
   (e) The Economic Development Act 35
      I. Grants for public works and development facilities 35
      II. Technical assistance made available 35
      III Guarantees for working capital for businesses 35
      IV The Construction of new buildings 35
   (f) The New Communities Act. 42 U.S.C.A. 3901 36

PART IV.

8. Changes in present Legislation and New Legislation ... 36

Conclusion 36

THE IMPLEMENTATION OF OLD MAN RIVER: A proposal as to how State and Federal Urban Legislation can be used to implement Old Man River., R. Buckminister Fuller's environmental City Concept for the East St. Louis, Illinois Riverfront.

INTRODUCTION

The good life for any man, depends on the good life for all men.[1] The concept of community has as its goal, the bringing about of a good life for all men. R. Buckminister Fuller, has responded to the challenge by the City Council of East St. Louis, Illinois, to build community, by joining with them to explore fully an optimum design for the development of the East St. Louis Riverfront.[2] Dr. Fuller's response is the conceptualization of a comprehensive new town-in-town environmental city proposal called Old Man River.

First, a description of Old Man River,[3] its uses, costs, and suggested legal framework will be given here.

Secondly, an analyzation as to whether, and to what extent, Laws of the State of Illinois, and Federal Laws, can be used to implement Old Man River will be made.

Lastly, some notions as to changes needed in present State and Federal laws will be suggested.

---

1. R. Buckminister Fuller., February 1970, East St. Louis, Ill.
2. City Council of East St. Louis, Resolution Establishing Design and Development for the East St. Louis, Riverfront, November 18, 1970
3. The materials in this section were supplied by James Fitzgibbons, Architect, Washington University, 1970

(1)

A DESCRIPTION OF OLD MAN RIVER

Following the East St. Louis City Council request to R. Buckminister Fuller to submit a concept proposal for the Riverfront, Mr. Fuller determined on an approach which would recognize the necessity of a major project attempt to recover for East St. Louis, a missing sense of community and civic pride and identity. This was to be an effort to make for East St. Louis a large-scale civic-community venture which would be:

(1) A comprehensive town, built within the city limits.

(2) A project which would involve the best available environmental information and embody the best technological procedures directed toward a good life for all the people who would live in this town and in the area surrounding it.

(3) A source of civic pride and identity, which in turn would tend to attract people, tourist interest, businesses and capital investment in both the new town and in the region.

(4) A demonstration that people could study, think about, and be involved in the ownership of the design and the accomplishment of a town and its promises of a decent living environment for its people.

The project required in this preliminary concept stage the adoption of several working assumptions. These would be employed until further or better information called for changes in this base data. First an assumption that the town would be designed for approximately 0,000 families.

Second that it would be designed to exist under a glazed, sun controlling, weather-temperature controlling umbrella. And that the initial design would have houses of all kinds arranged in terraces sloping up the side of a "hollow

mountain." The inner mountain slope would have community sports and group functions and both within and under the mountain and the city would be commercial enterprises, light industry, shopping, transport facilities. And that we would take advantage of the U.S. Government proposals to aid in the removal of the existing Railroads and extend the Jefferson Memorial Arch along the East riverfront--to place this environmental town within a park itself as an extension of the government park. The density proposed is approximately 55 families per acre, about the same density as the Plaza Square Apartments in St. Louis.

Care was to be taken that this domed town and the St. Louis Arch complemented each other in relationship to bridges, axial direction and placement in respect to each other.

The following pictures show the view from the actual site. These pictures show that the contemplated location would in fact complement the Arch.

The second picture shows the site in relation to the Arch.

This East St. Louis new town being about one half this population we adopted a preliminary cost magnitude of approximately one billion dollars. A further assumption based on certain large scale construction experience indicated that the building time required would be from 10 to 20 years and that the capital input would be spread over that period.

Some estimates involved indicate large magnitudes of certain items; over 200 acres of plexiglas or glass, 2,000 miles of framing steel beams, tens of thousands of plumbing items, electrical appliances and similar large magnitude material requirements. It can be expected that American industries will very likely use these large magnitude opportunities to expand branch supply, assembly and distribution facilities in the East St. Louis area.

It can be also estimated that labor costs in any construction approximately 50% of total capital costs and this large sum must be translated into job requirements during the construction phases.

Old Man River Town is composed of 15 to 20 neighborhood units of between 2,000 and 3,000 people arranged in identifiable clusters, each with its neighborhood elementary schools, day care centers, and recreational centers. The neighborhoods are arranged in a kind of conic hollow mountain within a diverse shopping and commerical center--all within convenient walking distance from any of the town's citizens.

Civil services are located in connection with the central business district structures and provide central town administration Fire and Police protection and an information service.

Office spaces and clinical medical space is provided for the town; major hospital service is to be provided in East St. Louis and Metropolitan St. Louis.

Churches, variety stores, pubs and restaurants are located in various places to give a sense of easy accomondations and all possible opportunities for the good life.

The high school main structure is located in the town, and its auxillary buildings, sports center, etc., extend beyond the town edge of the East.

The housing pattern will be of modest density. The town boundaries proper will contain approximately 6,000 square feet or about 150 acres. The neighborhoods and connected housing will total about 9,000 families or about 60 familes per acre. This is about the density of the Plaza Square Apartment Complex in St. Louis but is well below density standards (200 families per acre) proposed by Jane Jacobs as appropriate to Urban density comfort.

Density must be considered in relationship to open and green space closely connected to the Urban concentration. This must be considered in context to the town's unique sitting and the fact that it is designed as an Environmental enclosed totality.

The site proposed lies on the East bank of the Mississippi within the city limits of East St. Louis, Illinois, St. Clair County. Sections of the East bank of the river is all under design consideration by the United States Department of National Parks as an extended riverfront development. The Jefferson Memorial Gateway National Park on the West Bank and the extended East bank park are components of an unified development idea with the Gateway Arch as the western focal point. Also, highway planning calls for the extension of a riverside roadway running the full length of the Mississippi--The River Road. This road will probably parallel the river's edge on the eastern bank and the incorporation in the National Park Development Plan. Therefore, the site chosen for the Old Man River town is immediately to the East of the National Park strip, and just to the North of the Veterans Bridge--Highways 40,50, and 60 bridge approaches.

The proposed site is approximately one mile square, measured from the river ban and the Veterans Bridge.

This site is about one-half mile north and east of the Gateway Arch and looks out over St. Louis City and magnificent stretches of the river north and south and east across the open Illinois countryside. The Arch is well within view from the town; and, indeed, the view from this vantage point is one of the finest of the Arch and St. Louis.

The town is enclosed in a network dome of metal and sun-controlling plexiglas. This dome is one-half mile in diameter and risos 800 feet to enclose the conic hollow mountain.

The enclosure top culminates in a paraboloidal upturn within which are the ventilating controls and mechanism and thru which rises the central TV mast.

The enclosed town consists of three main ground levels. The lowest-at approximately present site ground level will contain almost all the automotive traffic, town parking, truck service passages, and several railroad connector tracks. All goods and services, trash collection, and essential auto traffic will be on this level. The next higher level will be mainly pedestrian-with limited auto service and will be secondary parking level and a main shopping level. The next higher level will be the main town ground level with all pedestrian and electric vehicle service and delivery use. There will be upper level areas for a wide variety of civic, recreation, school, promenade, and related uses. These will occur as connectors in the housing structures as bridges, terraces and open spaces.

COSTS

Certain cost estimates made by major corporations for conventional new towns in the United States indicate that towns of 80,000 to 100,000 population projected in the United States of America will be about one billion dollars. This included land and development costs, improvements, roads, streets, walks, water, sewers, drainage, town administration and services, landscaping, all buildings, housing, commercial, civic, schools, fire stations, etc.

The East St. Louis new town being about one half this population, the preliminary cost magnitude of approximately $1,000,000.000 is adopted. East St. Louis is a high cost area. A further assumption based on certain large-scale construction experience indicated that the building time required would be from 10 to 20 years and that the capital input would be spread over that period.

Some estimates of materials involved indicate large magnitudes of certain items; over 200 acres of plexiglas, or glass, 2000 miles of framing steel beams, tens of thousands of plumbing items, electrical appliances and similar large magnitude material requirements. It can be expected that American industries will very likely use large magnitudes to expand branch supply, assembly and distribution facilities in the East St. Louis area. It can be also estimated that labor costs will be approximately 50% of total capital costs and this large sum must be translated into job requirements during the construction phases.

The following is a preliminary itemized breakdown of costs:

ITEMS		COSTS
1.	Land Site A.	$20,000,000
2.	Land Site B.	
3.	Excavation and piling (in real estate)	
4.	Roads, walks, including estimates of streets	8,500,000
5.	Sewage and Water supply includes trash	14,000,000
6.	Landscaping, lawns and planting	2,000,000
7.	Real Estate Structure (8,500 units)	64,800,000
8.	Dome and Glazing	84,300,000
	Flexiglass	19,300,000
10	Elevators	24,000,000
11	Mechanical	7,000,000
12	Residential construction	125,000,000
13	Lighting	4,200,000
14	Civic, Public Elementary Schools	5,000,000
15	Jr. High School	5,100,000
16	City Administration	1,700,000
17	Library & Recreation	6,100,000
18	Transportation Terminal	1,400,000
19	Clinic Hospital, 150 beds	12,600,000
20	Garages	71,200,000
21	Contingency at 12%	95,000,000
22	Architectural and Engineering fees	23,800,000
23	Overhead 25%	120,000,000
24	Financing Fees	70,000,000
25	Pre and Post Implementation	214,214,990

LEGAL STRUCTURE TO IMPLEMENT OLD MAN RIVER

A. TAKING THESE CONCEPTS AS A POINT OF DEPARTURE, THE first legal mechanism that will be organized will be a public non-profit corporation called Old Man River Community & Economic Corporation. The primary purpose of the Old Man River Community Development Corporation will be to build Old Man River for the economic benefit of the low income community of East St. Louis. The Old Man River Economic Development Corporation will be a public corporation, incorporated under the non-for profit laws of the State of Illinois.[4]

1. A Local Economic Development Company may promote economic development of low income community by encouraging members of the community to engage in worthwhile enterprises.[5] A condition precedent to the implementation of Old Man River is that the people of East St. Louis initiate it, and are the beneficiaries of an improved economic status as a result of it. The Old Man River Economic Development Corporation structure will permit this in the following ways:

(a) This corpporation can obtain a section 501 (c) (3) tax exempt status under the Internal Revenue Code.[6] Such status opens the way for financial support from a broad range of charitable sources.[7]

4. Ill. Rev. Stat.,1963, Chapter 32, Section 163a.
5. The Local Economic Development Corporation--Legal and Financial Guidelines, compiled by PLI and the U.S. Department of Commerce, 1970, p 1.
6. Internal Revenue Code, Section 170.
7. Articles of Incorporation of the proposed Old Man River Economic Development Corporation in the appendix.

(b) The Law of the State of Illinois permits non-profit membership corporation formation.[8] Membership in Old Man River Economic Development Corporation is the most likely area for broad community participation. Eligibility for membership in the corporation shall extend to all residents of the City of East St. Louis 16 years or over; to all who have regular employment in such community, and to all those employed by the corporation; and to all others who actively and regularly support or participate in the activities of the corporation.[9]

Further, eligibility for membership in the corporation shall extend to a duly elected representative from each of the following organizations; (to be listed in Articles of Incorporation.)[10] By extending membership to the elected representatives of various types of established interest groups in the community-for example, smaller community organizations, business, social, religious, social welfare, and civil rights organizations working actively in the community, academic groups working in the community a pattern of wide cross section representation is guaranteed.

2. A Public purpose exists in the implementation of Old Man River, justifying the issuance of Tax Exempt Bonds and the expenditures of other public monies for the construction of municipal facilities such as water systems, hospitals, sewers, highways, and sidewalks. A public purpose exists, justifying; the use of and expenditure of public funds to relive unemployment, also.[11] In the State of Illinois, a municipality may issue bonds that are paid for by taxes, if the community agrees to such issuance by referendum.[12]

9. Appendix 1., Purposes of Corporation
10. Ibid.
11. The Local Economic Development Corporation--Legal and Financial Guidelines., U.S. Department of Commerce., 1970, page 145.
12. Ill. Rev. Stat. Ch. 67/2, Sect. 86

Such activity is authorized by the statute for redevelopment projects, which can be defined as including activities necessary for the purpose of creating a new, balanced community containing residential, commercial, and civic facilities in town.[13]
The costs of acquiring, reclaiming, filling in, developing, preparing, and improving the land could be initially financed by the issue of such tax-exempt bonds. Upon completion of site improvements the land may be leased or sold to private developers who further develop the project area by the construction of houses and buildings for commercial use. The lease of sites to developers for high value uses such as commercial office buildings produces revenues which can be used to pay the principal of and interest on the outstanding obligations of the municipality. In addition such income also may be used to finance the cost of civic and recreational facilities and to construct housing for persons at low income. This arrangement makes the entire project self-supporting and requires no capital expenditures by the municipality of the state.[14]

(a) Local interest groups can join to form what will be known as the Old Man River Economic Development Corporation. Revenue Service has taken the position that such local development corporation may issue tax-exempt bonds provided certain requirements are met, as follows:

Obligations issued by a non-profit corporation formed under the general non-profit corporation law of a state for the purpose of stimulating indutrial development within a political subdivision of the state will be considered issued on behalf of the political subdivision, for the purposes of section 1.103-1 of the Income Tax Regulations, provided each of the following requiremants is met:

13. Ill. Rev Stat. Ch. 67½, Sect.64., p8
14. The Local Economic Development Corporation: Legal and Financial Guidelines; Department of Commerce., 1970, p.147.

1. The corporation must engage in activities which are essentially public in nature;

2. The corporation must be one which is not organized for profit (except to the extent of retiring indebtedness);

3. The corporation income must not inure to any private person;

4. The state or a political subdivision thereof must have a beneficial interest in the corporation while the indebtedness remains outstanding and it must obtain a full legal title to the property of the corporation with respect to which the indebtedness was incurred upon retirement of such indebtedness and;

5. The corporation must have been approved by the state or a political subdivision thereof, either of which must also have approved the specific obligations issued by the corporation. Interest received from such obligations is excludable from gross income, under the provisions of section 103 (a) (1) of the Internal Revenue Code of 1954.[15]

(b) Under the New Constitution for the State of Illinois, The State can also, pledge its full faith and credit guaranteeing the repayment of such tax-exempt bonds. 16

(c) Based on the IRS ruling the most realistic approach for the local community organization is encouraging the political subdivision to assume the job of issuing the bonds. The bonds of the political subdivision would clearly be tax exempt under the Internal Revenue Code.

15. Ibid; p. 147
16. Constitution of the State of Illinois, Ill Rev. Stat,1971

3. Funds are available from the Federal government for financing Local Economic Development Corporation activities under the following Acts of Congress.

a. The Economic Opportunity Act, 42 U.S.C.A, Ch. 34
b. The Department of Labor, 42 U.S.C.A. Ch. 30
c. The Economic Development Act, 42 U.S.C.A. Ch. 38
d. The Small Business Administration Act, 32 F.R. 15149
e. The Slum Clearance or Urban Renewal Act. 42 U.S.C.A. Ch. 8
f. The Metroplitan Development Act. 42 U.S.C.A. Ch. 4

A full explanation of how each of these acts can help implement Old Man River will be made under Part II of this paper.

4. Funds are available from the State of Illinois for financing Local Economic Development Corporation activities under the following state laws. A full explanation will be given later on in the paper.

A local Economic Development Corporation, public non-profit in nature can sponsor profiting entities which through their purchase of stock interest in such entities or through contract arrangements made as part of loan agreements with such entities, have a controlling voice in the allocation of such profits. A community trust can be set up that will inure to the benefit of the low income residents of the city of East St. Louis. [17]

B. THE PROFIT ENTITY THAT WILL BE USED TO IMPLEMENT OLD MAN RIVER WILL BE THE OLD MAN RIVER LIMITED DIVIDEND HOUSING ASSOCIATION.

---

17. The Local Economic Development Corporation ; Legal and Financial Guidelines, 1970, The Department of Commerce, Page 34.

PRIVATE PLACEMENT MEMORANDUM

Dated: January 1971

Old Man River - A New Town in Town

Limited Partnership Interests

$101,214,999.00

50,000,000 investment units

A limited partnership to own and cooperate a new town in town, the City of East St. Louis, Illinois

O L D M A N R I V E R

(A Limited Partnership) 20 Units
of Limited Partnership interests
totaling $50,000.000

S U M M A R Y

The Project

Old Man River Company (the partnership) was formed to build, develop and own a 9000 New Town in Town Apartments.

Property

5000 moderate income apartment units on

Due Dates for Payment of a $50,000.000 Investment Unit

Three Installments:

First Installment at the time of admission
$16,667.000

Second Installment on June 1, 1972
16,667.000

Third Installment either on June 1, 1973 or upon completion of construction, whichever is later
16,666.000

Rents

No of Units	No of Each	Minimum Monthly Rent (inc heat & electricity)
2 bedrooms	4290	$136,070.00
3 bedrooms	700	152,880.00
Superintendent	10	0

Cost of Development

$101,214.990 show on Exhibit F.

Mortgage

An $89,050.000 Mortgage loan insured by the FHA under Section 236 of the National Housing Act.

Lenders

Construction Lenders

The First National Bank of East St. Louis and the Illinois State Federal, Savings and Loan

Permanent Lender

The Federal National Mortgage Association

Builder

General Partners

Payback Period

Estimated period of time for a Class A Limited Partner's Investment to be recovered through tax savings and distributions of cash flow:

TIMING	50% Tax Bracket	60% Tax Bracket
First Installment	11 year, 3 months	11 year, 0 months
Second Installment	11 year, 10 months	11 year, 3 months
Third Installment	22 years, 9 months	11 year, 11 months

Rate of Return

Estimated Rate of Return for a Class A Limited Partner's Investment as shown in Exhibit H:

Limited Partner's Tax Bracket	After Tax Annual Rate of Return	Equivalent Pre-tax annual rate of
50%	20.2%	40.4%
60%	27.5%	68.8%

Financing

Old Man River will be financed with funds from mortgage loans and capital contributions from the General and Limited partners.

The Project will be financed under and pursuant to 67 1/2 of the 153 of the Housing and Development Act from the State of Illinois, (the State Loan Program). Funds for construction will be loaned by the city of East St. Louis with interest at an annual rate of 5 1/2 % until final endorsement. Final Endorsement is the date on which the HUD endorses the mortgage,indicating completion of construction and conversion of the construction loan to a permanent mortagage.

The exact amount of the permanent mortgage will be dependent upon actual development costs certified to, and approved by the Urban Renewal Department. The actual interest rate will be the prevailing rate at this time. Principal and interest are payable in equal monthly payments over a 29 year period.

Building

Construction of the building will be performed by the ABC Construction Company, (the General Contractor) pursuant to a lump sum construction contract approved as to price and

as to price and terms by Urban Renewal. Although Urban Renewal does not require a performance bond by the General Contractor in connection with construction, the General Contractor's performance shall be secured by the following:

(a) 10% of the project construction cost shall be held in escrwo (either in form of letter of credit or cash or notes) pending performance of the contract and completion of the building in accordance with the plans and specifications approved by Urban Renewal.

(b) A written undertaking and quarantly of performance of the contract and completion of the building in accordance with the committment; such written undertaking and and quaranty to be executed by Southern National Bank as the principal of the General Contractor and by _____ as the affiliate of the General Contractor.

The General Contractor has been engaged in the construction of buildings similar to those included in the Project for approximately 10 years. It has constructed approximately 1,000 apartment units.

Architect

Old Man River designed by R. Bucky Fuller, the architect for many domed projects built in the world.

General Partner

There will be one corporate general partner, the National Corporation for Housing Partnerships, which is a wholly owned subsidiary of the National Housing Partnership. The managing general partner, the National Corporation for Housing Partnership will have a 5% interest in profits and losses and a 5% interest in capital of the partnership for which it shall make a capital contribution of what every is needed to get the project completed.

The Officers of the National Housing Partnership, and the National Corporation for Housing Partnerships are as follows:

Ray A. Watt, Chairman
Carter L. Burgess
George W. DeFranceaux
Lane Kirkland
Raymond T. OKeefe
Leon N. Weiner
John H. Wheeler
Frank W. Barnes, Sec.
Robert S. Irving, Vice President and Treasurer
E. Thomas Stoddard, Comptroller

The Board of Directors of the National Housing Partnership are:

Carter L. Burgess, Chairman
Peter J. Bertolglio
Morris D. Crawford, U Jr.

18.

Limited Partners

The Partnership will admit investors as Limited Partners who will contribute as capital to the Partnership a total of $_____,representing 95% of Partnership capital and 90% of Partnership profits and losses.

Younge, Younge, and Younge esqs (hereinafter referred to as "Special Partners") will have a % interest in Partnership profits and losses and no interest in Partnership capital.

Limited Partnership interests will be offered in Units of $50,000.000 of which $16,667.000 will be paid at the time an investor is admitted to the Partnership and the balance due in seventeen 17 personal liability serial notes; as follows:

(a) The first note in the amount of $_____ without interest due on December 1, 1972.

(b) The remaining sixteen notes in the amount of _____each, plus interest at 7 1/2 per annun in appears on the unpaid balance of the principal. Said notes are to be due quarterly with the first note due on April 5, 1973.

Allocation of Benefits

The Limited Partners and Special Partners will receive 95% of the cash flow and profits and losses from normal rental operations.

Upon the sale of all or substantially all of the assets, or upon a refinancing the limited partners will receive 95% of all proceeds. The Special Partners will receive none of the proceeds.

Distributions are expended to be paid annually. beginning in the year following final endorsement. Under present Urban Renewal Mortgage regulations, annual distribution from normal operation may not exceed six per cent (%6) of the difference between the total certificate cost of the project and the amount of the mortgage, which is limited to 90% of such total certificate costs. A Second Income Plan Trust will be established at 5% of the Flow immediately, and for 75% of the Cash Flow after the mortgage loan is paid.

employment

GARDEN CENTER	20
GARDEN SERVICE	10
GLASS CONTRACTING	15
MUSIC SCHOOL	10
PRINTING	10
TV REPAIR	25
HOSPITAL-CLINIC	65
INSECT CONTROL	20
REAL ESTATE	25
INSURANCE	120
IRON WORKERS	50
LABOR ORGANIZATIONS	30
LAWYERS	10
LIBRARIES	20
LINOLEUN LAYERS	15
MANAGEMENT ORGANIZATIONS	12
NURSES	30
MASONS	35
MENTAL HEALTH	15
MERCHANTS PROTECTIVE SER.	30
MICROFILM	10
MUSICIANS	20
NEON SIGNS	30
NOISE CONTROL	20
ORGANIZATIONS PRIVATE CIVIC PROFESSIONAL	40
PAINTERS	30
PARKING GARAGES-LOTS	40
PHYSICAL THERAPY	15
PHYSICIANS EXCHANGE	10
MUSIC INSTRUCTION	20
PLUMBERS	30
PLAYGROUNDS	30
SOCIAL WORKERS	10
READING INSTRUCTION	10
REFRIGERATION SERVICE	20
RESEARCH ENGINEERS	10
TRAVEL AGENCIES	15
SCHOOLS (ADULT-PRIVATE) SPEECH TRAINING SPECIAL SEWING	20
SWIMMING POOLS	25
TV RENTAL	10
TILE WORKERS	30
TOURIST INFORMATION	15
TREE SERVICE	10
WASTE CONTROL	35
WATCHMEN	20

GIFT SHOPS	10
MUSIC SHOPS	30
SPORTS EQUIPMENT	20
HIGH FIDELITY	10
MOTELS	80
LIQUOR RETAIL	20
NEWS SHOPS	5
BUTCHERS	40
MOTEL SUPPLIES	25
MOTION PICTURE THEATRES	30
MOTERCYCLE SALES	20
NIGHT CLUBS	40
OPTICAL GOODS	10
PAINTERS	15
OFFICE FURNITURE	20
OFFICE SUPPLIES	40
PAINT-HARDWARE	50
PARTY SUPPLIES	20
PHARMACIES	40
PHOTOGRAPHERS	10
PLASTIC SIGNS	15
POOL HALLS	20
POPCORN SUPPLY	15
PORCH SHADES-AWNINGS	20
SOUND SYSTEMS	5
UPHOLSTERY	12
STOCKBROKER	15
SWAP SHOPS	20
AIR CONDITIONING SCHOOL	8
AIR EXPRESS	8
AIR POLLUTION CONTROL	10
AIR POLLUTION MEASURING	2
BIRTH CONTROL CENTER	8
INVESTMENT	6
BOWLING ALLEYS	18
BLOOD BANK	8
BOOKKEEPING-TAXES	30
BROADCASTING-TV-RADIO	60
BUILDING MAINTENANCE	110
CARPENTERS	25
CARPET LAYERS	15
CARPET CLEANING	10
MODELING SCHOOL	12
CHECK CASHING SERVICE	15
CHILD GUIDANCE	6
CHURCH FUND RAISING	10

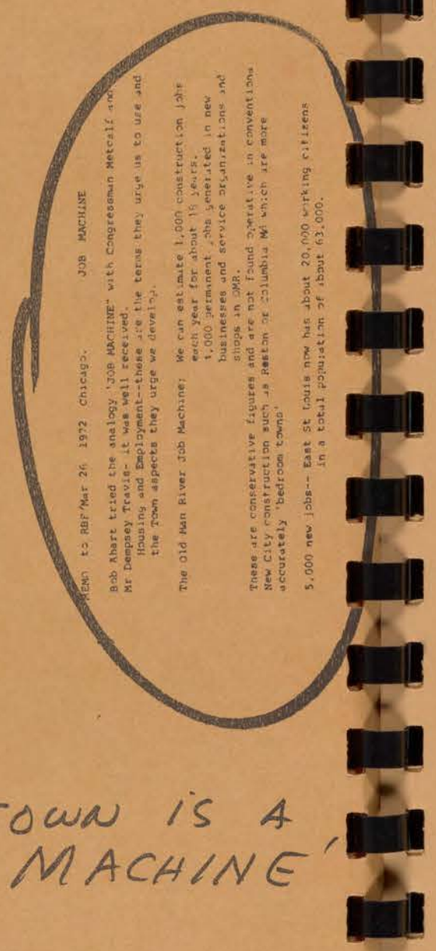
NEW INDUSTRIES

ALUMINUM EXTRUSIONS	150
READY MIX CONCRETE	35
METAL SUB-ASSEMBLIES	100
PLASTIC LAMINATES	30
PLEXIGLAS-PLASTICS	50

NEW BUSINESSES

ADVERTISING	10
HOBBIES-MODELS	8
AIRLINE OFFICES	10
AMBULANCE SERVICES	5
AMUSEMENT DEVICES	18
ANIMAL HOSPITALS	10
APARTMENT MAINTENANCE	12
SPORTS ARENA	35
ART GROUPS	11
ARTIFICIAL FLOWERS	12
AUTOMOTIVE SERVICES (all kinds)	180
AUTO LAUNDRIES	15
AUTO LEASING	20
AIR CONDITIONERS	20
BACKGROUND MUSIC	8
BRANCH BANKS	25
BARS	32
BOOK STORES	20
BUS TERMINAL	65
CAMERA SHOP	16
CANDY	11
CARPET SALES	30
FURNITURE RENTAL	18
TOBACCO SHOP	6
CLEANING (CLOTHES)	15
LAUNDRIES (VARIOUS)	30
JEWELERS	12
COIN MACHINES	14
EYE GLASSES	10
COSMETICS	10
HAIR STYLIST	20
COUPON CENTER	15
DIET FOODS	8
DISCOUNT HOUSES	100
DRESS SUIT RENTAL	15
ELECTRIC COMPANY	45
FISH-SEAFOOD	25
ICE CREAM SHOPS	12
FLORISTS	10
FURNITURE	35
GARDEN SHOP	20
GARDEN FURNITURE	15

CITY OFFICES	15
VENDING MACHINE SERVICE	25
COLLECTION AGENCY	5
COMPUTER CENTER	18
CONCRETE-CEMENT WORKERS	50
COPY CENTER	8
DELIVERY SERVICE	10
DECORATORS	12
HOME DEMONSTRATION	8
DENTISTS-ASSISTANTS	15
DRIVING SCHOOL	10
HEARING AIDS	5
ELECTRIC SERVICES	40
EMPLOYMENT AGENCIES	15
ENTERTAINERS	12
RECREATION CENTERS	30
FEDERAL OFFICES	15
FRATERNAL ORGANIZATIONS	20
FUNERAL DIRECTORS, ETC.	5



THE TOWN-IN-TOWN IS A 'JOB MAKING MACHINE'

In Puerto Rico, Stocks for Everyone

EAST St. LOUIS CITIZEN'S STOCK OWNERSHIP TRUST

By RICHARD F. JANSSEN

SAN JUAN — To examine garden-variety government giveaways, one needn't come to Puerto Rico. To the chagrin of conservatives and the applause of liberals, governments around the world long have been handing out everything from false teeth to flour and loans, from welfare checks to subsidized mortgages.

But one does have to come to Puerto Rico to find a government planning a giveaway that is uniquely seasoned to both liberal and conservative tastes: shares of stock, and for virtually everyone.

In essence, Puerto Rico is considering giving up to the average mechanic or garbageman the same avenue a wheeler-dealer might take toward investment in a corporation with no cash outlay of his own—borrow money from a bank, use it to buy stock and use the dividends to pay off the loan. To make this painless approach to investorhood feasible on a mass basis, the Puerto Rican authorities propose to prearrange and guarantee the loans, and provide the stock through a sort of government-run mutual fund.

If the bill being pushed by Gov. Antonio Sacio Ferre is enacted (and prospects appear good), it could gradually transform Puerto Rico into a "commonwealth" in actuality as well as name, making it an island populated almost entirely by capitalists. All this, advocates admit a bit nervously, may flow from a theory that no country has hitherto tried to apply, and one that most prominent American economists dismiss as a crackpot dream.

Mr. Kelso's Theory

For years now, Louis O. Kelso, a San Francisco lawyer-author, has been telling people about his "theory of universal capitalism." It holds that the economy would grow much faster if the earnings of capital went to a great mass of people poor enough to spend them swiftly on the wordly goods they want, rather than to a tiny slice of wealthy investors already sated with possessions.

The theory takes roots in Puerto Rico's tropical climate, it just might be transplanted to northerly industrial nations. Canadian officials are already expressing interest, and some here say, and the more enthusiastic Puerto Ricans can envision long-poor Puerto Rico someday leading the U.S. itself into a bright new era in which every worker enjoys a sizeable "second income" from his dividends.

But what happens here is "important for the world," says Joseph A. Novak, a 41-year-old private tax lawyer from Massachusetts. Mr. Novak finds himself the key man in the effort to tailor the theory to Puerto Rican conditions. His assignment owes much to some rather personal encounters.

Mr. Kelso met once with Gov. Ferre some years ago, while on a mission involving a much narrower aspect of his dream, a corporate employee stock... airplane back to the Kelso happened to sit ne... Novak, and sparked his int... mer, chance struck again. Go... Mr. Novak's law partner to... secretary, and Mr. Novak s... through the newly personal... almost instantly drew the... a detailed plan, which... until the governor s...

If it succee... less than "t... serts. By giv... the action," he ta... fighting chance to co... the young and poor, and... to greater loyalty and di... ers add, it would even... likely to resort to strik... as the much-criticize... pany has suffered.

Failure, ... least as muc... the free enterprise ... lapse of speculative off-... has among Europe's small st...

Even if so much weren't p... stake, the details of the plan woul... ently intriguing. And they could, ... make it foolproof, or mask a fatal fla...

The basic instrument is to be the "... tary Fund for the Progress of Puerto Rico," known popularly in Spanish as the "Patrimonio" and in English as the "Ferre Fund," a nicety not lost on the governor's political opponents in this election year. Every employed Puerto Rican with gross wages between $800 and $7,800 a year would be eligible to buy convertible preferred shares in the fund. In turn, the fund's professional manag... ersified portfolio of ... agricultural oper...

... rs could buy in ... Mr. Novak ...

... d to those at the lo... ... scale, planners expect ... mmodate about 200,000 ... investors the first year. The ... classes of stock will be ... g off the bank loans, at ... erred shares will be con... ... and the worker-investor ... the dividends.

... ake only about five years, ... nting on shrewd investment ...

rate employe...

BUSINESS and INDUSTRIAL CORPORATIONS

PURPOSE:

1. To provide community participation in economic growth
2. To provide a primary and secondary income for the citizens of East St. Louis

... fund in addition ... e people to sell ... itable existing ... l would make ... se receiving ... pay any in... ... come resi... will get an ... to $100 in ... lemental ... e many ... ic first-

OLD MAN RIVER COMMUNITY ECONOMIC DEVELOPMENT CORPORATION

PURPOSE:

1. To implement OLD MAN RIVER New Town
2. To provide a developmental framework for OLD MAN RIVER
3. To generate social and economic strength in East St. Louis

Hazards Conceded

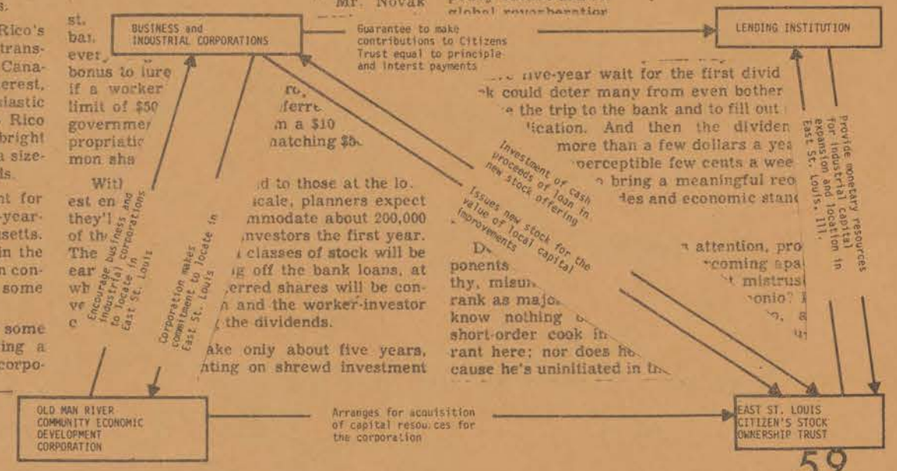
There are hazards, even ardent backers concede. At one extreme, the fund could become too successful. Within a few decades, some figure, it could prosper so massively that it would clearly be the most pervasive force in Puerto Rico's economy, in effect socializing or nationalizing much of industry, agriculture and retail... fund's chunk of big U... nies doing business in... it the pivotal voice i... policy battles and oth... global reverberation...

PURPOSE: decisions and a generous array of tax advantages to produce a return to the fund of 20%, maybe even 40% annually. (If it does take ... longer than five years, the government pays ... Mr. Novak argues. ... be in small, pre... ventures, and in ... sist on a "rela... before investing. ... axes, and it can ... pplement its re...

1. To purchase stock in a corporation equal to its capital in East St. Louis
2. To distribute to the citizens of East St. Louis stock dividends in relation to their participation in the trust
3. To provide and arrange for financial resources for capital expansion of industries locating in East St. Louis

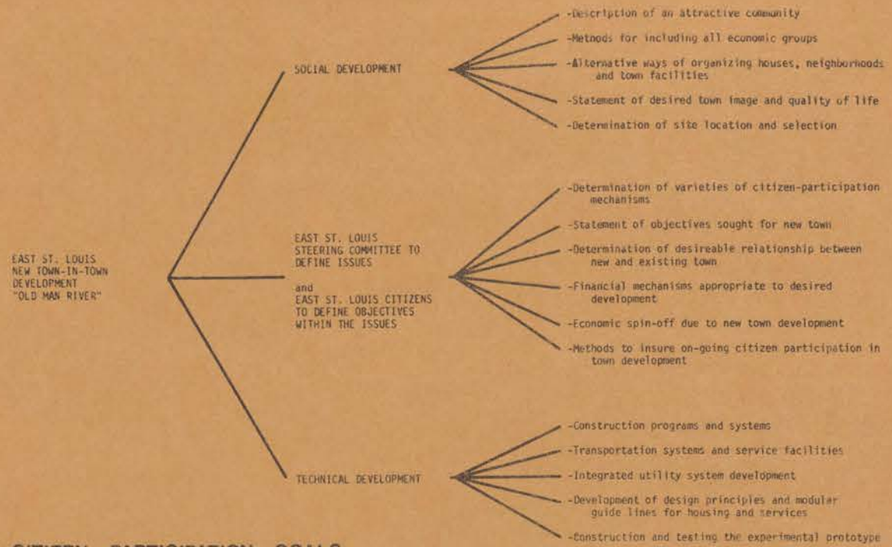
BENEFITS TO CORPORATIONS:
1. Tax Benefits for corporations
2. Increased productivity
3. Community involvement in productivity

BENEFITS TO LENDING INSTITUTIONS:
1. Increases money in local circulation
2. Brings money into the community
3. Increases local dollar deposits



BENEFITS TO CITIZENS OF EAST ST. LOUIS:
1. Increased employment opportunity
2. Second income for citizens
3. Community economic development

OLD MAN RIVER COMMUNITY
KELSO ECONOMICS DIAGRAM

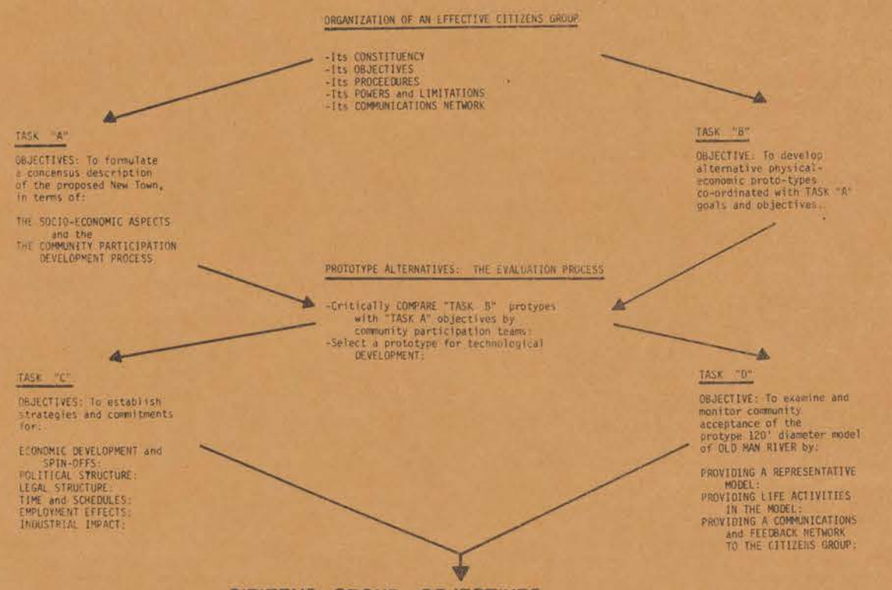


CITIZEN PARTICIPATION GOALS

TO DETERMINE AND ESTABLISH A SYSTEM OF DESIREABLE SOCIAL, ECONOMIC AND DEVELOPMENT MECHANISMS BY MEANS OF COMMUNITY PARTICIPATION WHICH WILL LEAD TO THE DESIGN AND CONSTRUCTION PF A NEW TOWN-IN-TOWN.

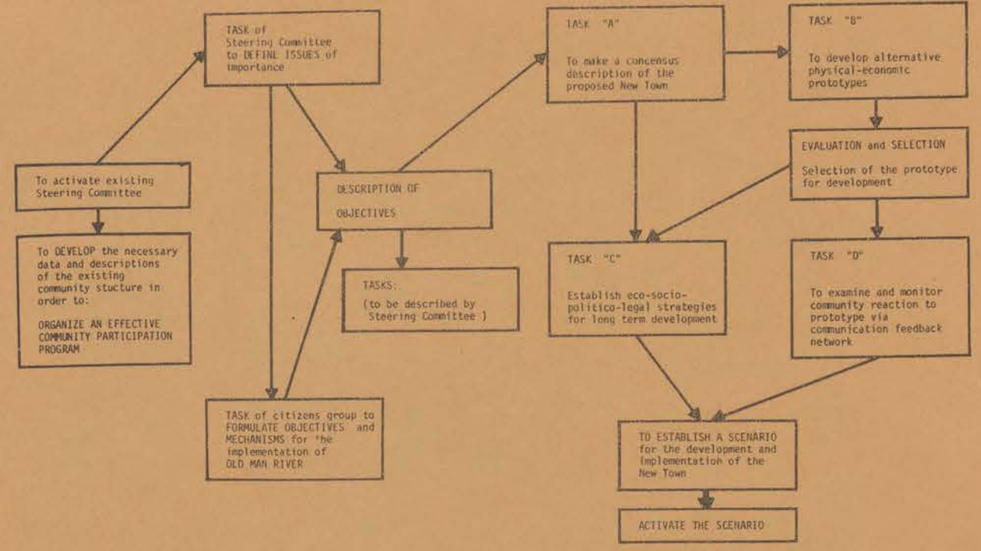
TO INITIATE APPROPRIATE TECHNICAL PROCEEDURES TO ACHIEVE THESE COMMUNITY GOALS IN THE BUILT TOWN-IN-TOWN.

THE CITIZENS PARTICIPATION PROGRAM

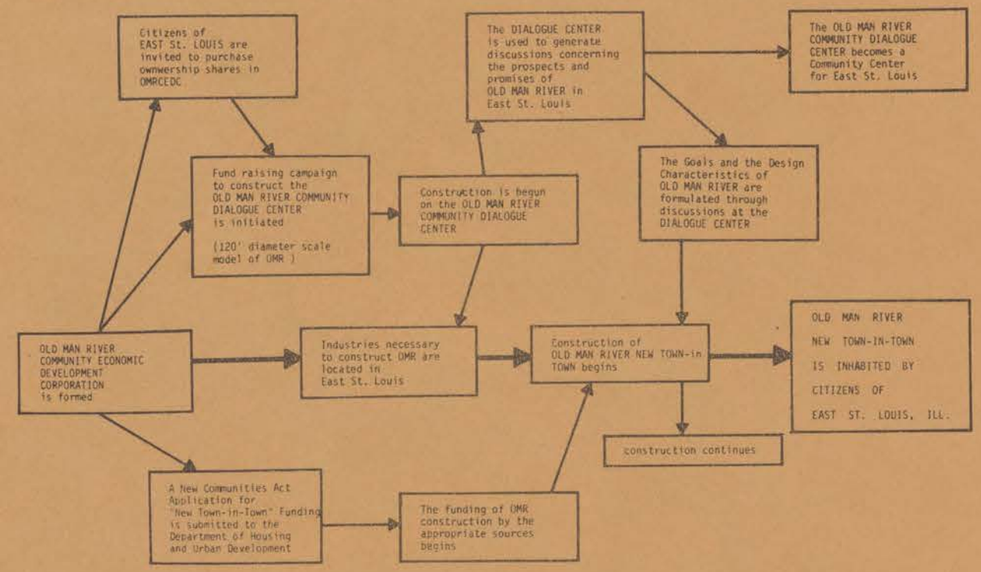


CITIZENS GROUP OBJECTIVES

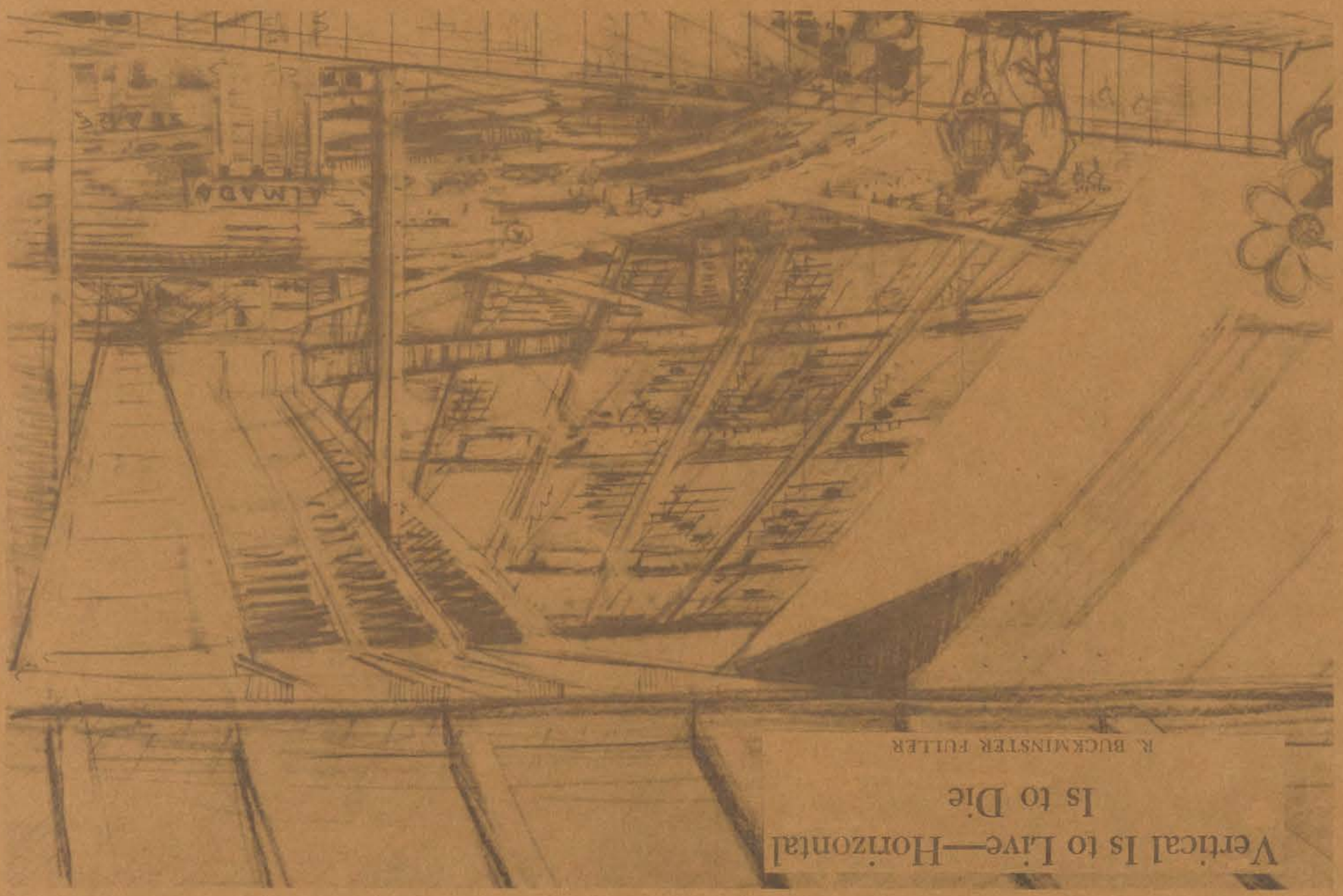
TO ESTABLISH A SOCIO-ECONOMIC and TECHNICAL DESCRIPTION OF A PROTOTYPE NEW TOWN-IN-TOWN for EAST ST. LOUIS, ILL.



CITIZEN PARTICIPATION PROCEDURES



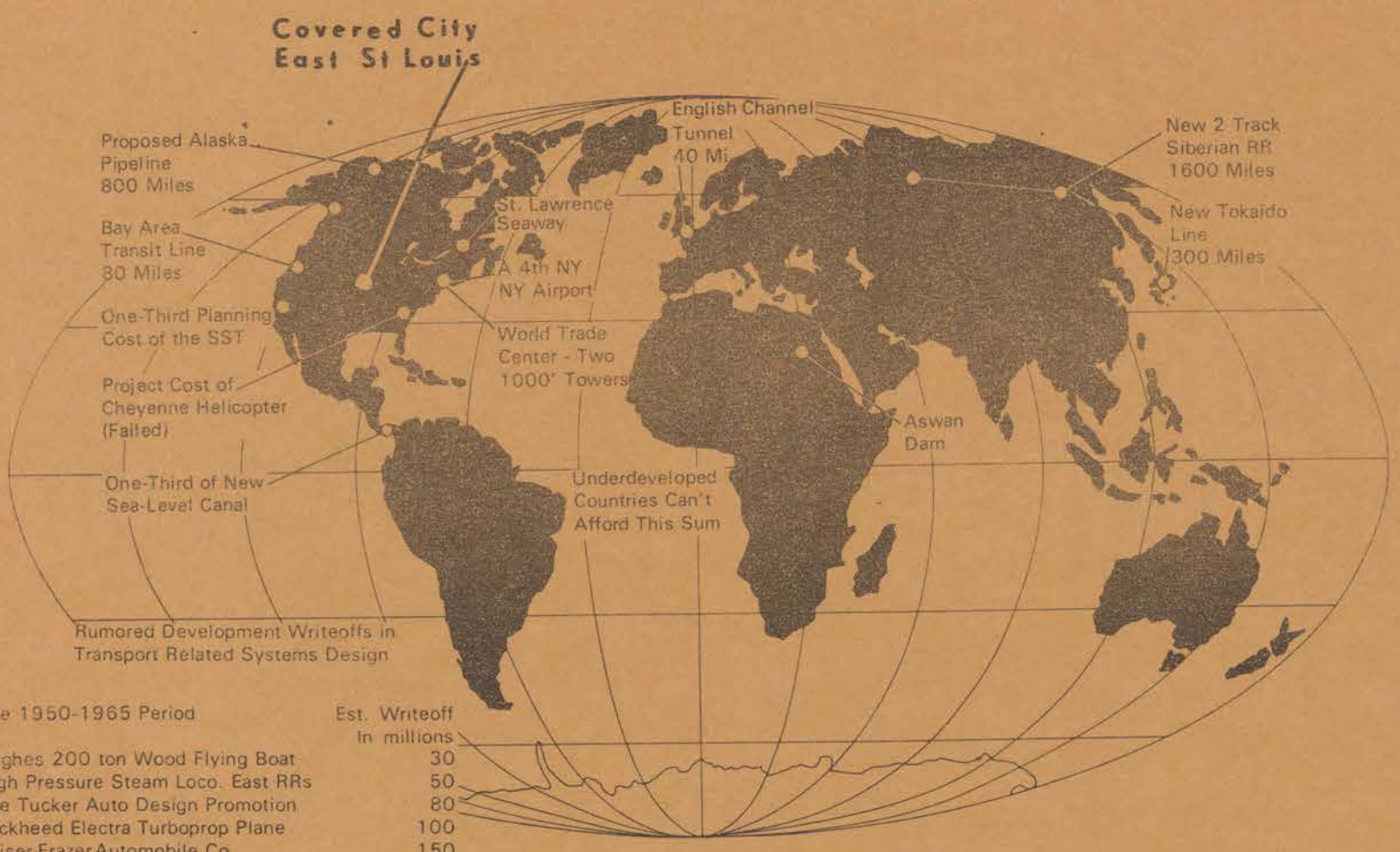
OLD MAN RIVER COMMUNITY DEVELOPMENT PROCEDURE



Vertical Is to Live—Horizontal
Is to Die

R. BUCKMINSTER FULLER

These Are $800,000,000 Projects:



A.

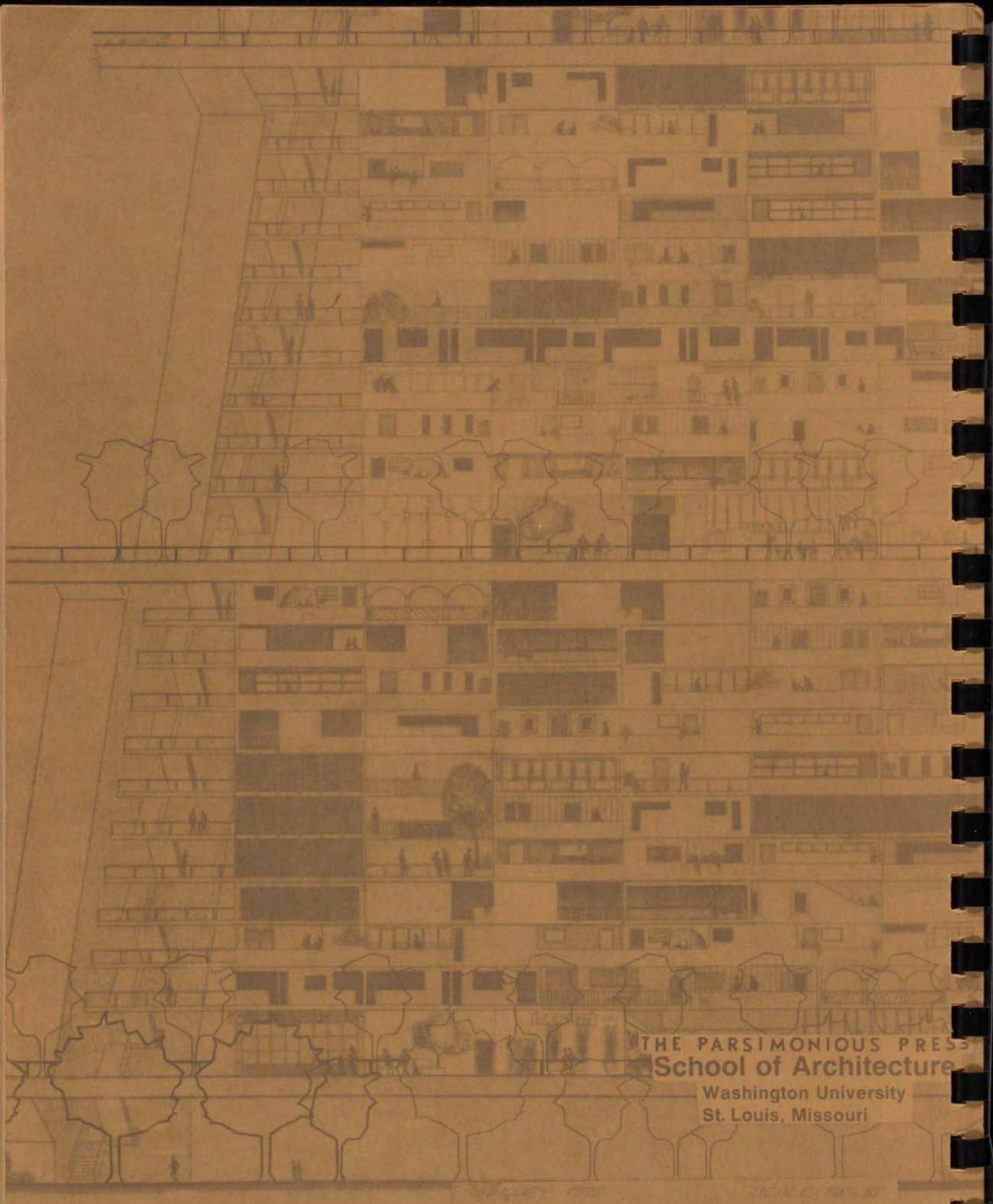
The 1950-1965 Period	Est. Writeoff In millions
Hughes 200 ton Wood Flying Boat	30
High Pressure Steam Loco. East RRs	50
The Tucker Auto Design Promotion	80
Lockheed Electra Turboprop Plane	100
Kaiser-Frazer Automobile Co.	150
The Ford-Edsel Auto Design	180
Initial DC-8 Design Overrun	200
Gen. Dynamics Convair 880 Jet Plane	400
Rough Order of Magnitude of Losses or Overruns in Project	$1,200

B.

The 1965-1975 Period	Est. Writeoff In millions
Lockheed "Cheyenne" Helicopter	800
C-5A Military Jumbo Transport	4,800
USA-SST est. design costs	2,400
F-111 Swing-Wing Attack-Intercepter	8,000
Supersonic Transport production	10,000
Rough Order of Magnitude of Total Outlays for projects with presently doubtful missions, needs, or economics	$26,000

Transportation Research Institute
Carnegie-Mellon University
Pittsburgh.

CAN AMERICA AFFORD A NEW TOWN ?
CAN WE AFFORD A NEW TOWN OPTION?
CAN WE AFFORD AN EXPERIMENT FOR LIVING?



THE PARSIMONIOUS PRESS
School of Architecture
Washington University
St. Louis, Missouri

TYPICAL BAY ELEVATION