

The ‘Great Society’, the Academy and Architectural Education in the United States. Leonardo Ricci’s Miami-Dade Model Cities Program ‘academic exercise’ (1968-1970)

La “Great Society”, l’Accademia e la formazione architettonica negli Stati Uniti. L’ ‘esercizio accademico’ del Miami-Dade-Model City Program di Leonardo Ricci (1968-1970)

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⁽¹⁾ Leonardo Ricci, *Anonymous (XX century)* (New York, Braziller, 1962), Italian edition: Leonardo Ricci, *Anonimo del XX secolo* (Milano, Il Saggiatore, 1965).

⁽²⁾ Giovanni Michelucci, “La città variabile”, *La Nuova Città*, 13 (January 1954).

⁽³⁾ Per Giovanni Klaus Koenig precisely identified four salient features of Tuscan architecture that Michelucci’s students also followed: the street surrounded by walls: following the contour lines leads to the continuous undulation of the street level, the walls enclose the houses and villas and open only for accesses, the height of the walls goes from two meters and twenty to two and seventy meters and are on a human scale, the wall binds seamlessly to the buildings that flank the road. Giovanni Klaus Koenig, *Architettura in Toscana 1931-1968*, (Torino, ERI-Edizioni RAI, 1968), 6.

⁽⁴⁾ Ricci was Researcher in Architecture (1945-1954), Professor of Architectural Composition and Design (1954), Professor of Interior Design (1954-1955), Professor of Art and Architecture (1954-1960), Professor in charge of the Industrial Design Course (1955-1960), Professor in charge of the Second Year Drafting Course (1960-1965). Since the 1960s he became Professor of Elements of Architectural Composition and Design, 1964-1965 then Director of the Urban Planning Institute, since 1965, Professor of Urban Planning (1966-1970) and Director of the School of Architecture since 1971. During his career Ricci also won several prizes as the Premio di architettura at the Biennale in San Paolo (1953), the Premio di Architettura di Napoli (1955), the golden medal at the Triennale di Milano (1958), the Fiorino D’Oro in Florence (1964), and the Premio INARCH in Florence (1966). In the Sixties he was the Director of the Town Planning Research Program for the Italian National Research Committee (1964-66, 1966-67). The main sources used to reconstruct Ricci’s career is Leonardo Ricci’s *curriculum vitae* kept in Casa Studio Ricci.

Introduction

An eclectic who emerged on the national and international architectural scene of the postwar period, Leonardo Ricci (1918-1994) was an architect, painter, scenographer, designer, and scholar. He was profoundly concerned with the role of both artist and architect, and with the importance of art, architecture and urban design as a way to rebuild a society affected by the crisis of values caused by the war. These themes he explored in his book *Anonymous (XX century)*, first published in 1962 by Braziller, and republished in Italy in 1965 with the title *Anonimo del XX secolo* by Il Saggiatore⁽¹⁾.

Ricci graduated in May 1942 with a dissertation on the design of an indoor and outdoor theatre at Boboli, Florence, under Giovanni Michelucci (1891-1990). Ricci was strongly influenced by Michelucci’s work, personality and design method. During the work under Michelucci’s guide, Ricci learnt some of the cardinal principles of his design method. Despite Michelucci wanted to teach the ‘art of the detachment’, there are several common points in Ricci and his master’s theory on architecture, work, and life that help us understand Ricci’s existential view on architecture, his conception of the city as an ‘open work’ and collective work of art. Firstly, the search for the truth in architecture, which had to overcome that for aesthetic or morphological results. Secondly the observation of the human dimension as a basic principle to be followed in the design of new spatial solutions, which resulted in the special use of sections as main representative tool. Unlike the plan, elevations, and perspective, sections considered and managed the complexity of human actions.

Moreover, Michelucci’s vision of a “variable city”, matured in the sketches for the reconstruction of the “screaming ruins” of the areas around Ponte Vecchio, sought a spatiality of a medieval matrix devoid of any rule other than spontaneity or function⁽²⁾. The city was the continuation of the interiors of a building and presented the same vital characteristics in a general continuity of relationships

Abstract: This article investigates the Miami-Dade Model City Programme designed by Leonardo Ricci, Riccardo Morandi and a group of students at the University of Florida (1968-1970) as part of the history of the Model Cities political Program. Namely, it looks at how the project intertwined between the Model Cities Staff and the Citizens' Task Forces' requests via focusing on how the involvement of scholars of different disciplines influenced the policies on the neighborhood and the work on the masterplans. This includes the study of those scholars, why they were called upon, and to what extent they affected the programme's complex progression. A historic overview on the program precedes a focus on the Task Forces' academic work in Johnson's 'Great Society', useful to analyze the Miami-Dade case study. The conclusion suggests a critical view on the project as 'academic exercise' and example for other Model Cities in its positive and negative aspects.

Keywords: Leonardo Ricci, Miami-Dade Model Cities Program, Urban Design, Macrostructure, Great Society

and internality. Therefore to Ricci the construction of the city consisted in the construction of relationships or their 'shaping' according to principles disconnected from formal matrices. This was especially clear in the design of the Florentine bridges Ricci carried out with Leonardo Savioli, Giuseppe Giorgio Gori, Emilio Brizzi and Riccardo Gizdulich. Their work was strongly influenced by the distinctive features of Tuscan architecture⁽³⁾, which underwent the charm of minor, rural and peasant architecture and sought the ideal solution in the combination of art and spontaneity of nature, between architecture, will of art, and landscape, pre-existing art [Fig. 3.1, 3.2].

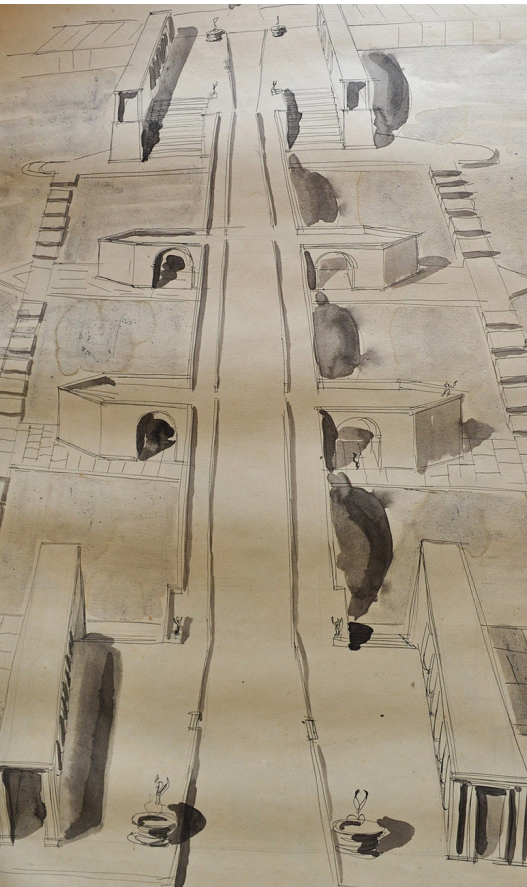
Ricci began practicing both in partnership with Leonardo Savioli and other Florentine architects from the second generation of Michelucci's students such as G. Gori, between 1944 and 1949, and, thereafter, individually. At the same time, since 1945 Ricci held academic positions in the Faculty of Architecture in Florence⁽⁴⁾ while he taught in the United States until the 1980s, whereby he conducted studies on the 'integrated town' on both fronts⁽⁵⁾. This resulted in the project for a macrostructure at a territorial scale designed with the students and assistants of both the University of Florence and of the Pennsylvania State University⁽⁶⁾. Ricci defined it the "synopia of the integrated town", a viable model for the future city as he would describe in *Città della Terra. Disegno per una urbanistica non alienata*⁽⁷⁾.

During his American transfer, Leonardo Ricci was one of the postwar Italian architects who fostered the ideal of community to be designed for reestablishing the social values system, and those who realized projects for community villages that found a clear reference in the most important instances of religious, cultural, political, and social models. He worked on the project for the community space starting from the conception of organic architecture as temporalized space invention for human individual and collective life and worked especially on the kibbutz model. Ricci pursued the community ideal in many projects as

⁽³⁾ Ricci was Boemis Visiting Professor at the Massachusetts Institute of Technology (MIT) (1959-1960); and Visiting Professor at the Pennsylvania State University where he taught Urban Design from 1965 to 1969. From 1969 to 1972, Ricci's teaching on Urban Design continued at the University of Florida as Graduate Research Professor and Director of the Urban Design Studio, and, from 1972 to the 1980s at Kentucky University. In those years Ricci's teaching coincided with his reasearch on the urban design project. He directed a PhD research project on urban design and arranged cultural exchange periods for the Italian and American students: he used to submit them the design exercise of new architectural models and involved them in seminars. See: Ilaria Cattabriga, *Leonardo Ricci in the United States (1952-1972)* (Siracusa: LetteraVentidue, 2023).

⁽⁴⁾ See Lara Vinca Masini, *Leonardo Ricci. Progetti di un'architettura per l'uomo del futuro. Un libro perduto e ritrovato 1967-2019* (Pistoia, Gli Ori, 2019).

⁽⁷⁾ *Città della Terra. Disegno per una urbanistica non alienata* is the title of an unpublished book Ricci wrote as a continuation of his first book *Anonymous (XX Century)*. The typescript of the volume is kept in Casa Studio Ricci (CSR from now on) in Florence. Ricci wrote about the same theme in other texts: Leonardo Ricci, "Space in Architecture: the visual image of environment" 244 - *Journal of University of Manchester Architectural and Planning Society*, 7 (January 1957), 7-11; Leonardo Ricci, "Exploratory Research in Urban Form and the Future of Florence", *Arts and Architecture*, 2 (February 1967), 25, 32-34; Leonardo Ricci, "Ricerche per una città non alienata", *Linea-struttura, rassegna trimestrale di Architettura Arti Visive Design*, 1-2 (March 1967), 39-51; Leonardo Ricci, "Architetto: per quale società?", *Casabella*, 384 (December 1973), 2-3; Leonardo Ricci, "New Towns' a scala territoriale" *Spazio e società*, 3 (March 1976), 73-81. Finally an unpublished text must be mentioned: Leonardo Ricci, "The Future of Cities", typescript, CSR, lecture presented to the Accent Symposium on February 11, 1970 at the University of Florida in Gainesville.



3.1, 3.2

Leonardo Ricci, sketches for the bridges of Florence to be rebuilt after the destruction of the war. The sketches are undated and untitled, CSR



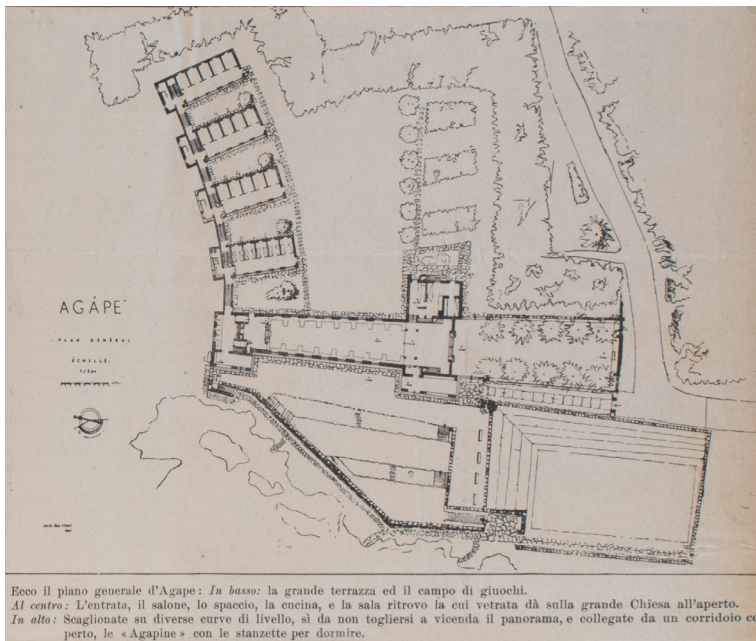
⁽⁸⁾ Further on Ricci see: Corinna Vasić Vatovec, *Leonardo Ricci. Architetto "esistenzialista"* (Firenze, Edifir, 2005); Michele Costanzo, *Leonardo Ricci e l'idea di spazio comunitario* (Macerata, Quodlibet, 2009); Antonio Nardi (edited by), *Leonardo Ricci. Testi, opere, sette progetti recenti di Leonardo Ricci* (Pistoia, Edizioni del Comune di Pistoia, 1984).

⁽⁹⁾ On Johnson's government: Lyndon Johnson, *The Vantage Point* (New York, Popular Library, 1971); David Halberstam, *The Best and the Brightest* (Greenwich, Conn., Fawcett Crest, 1973); Vaughn David Bornet, *The Presidency of Lyndon B. Johnson* (Lawrence, Kansas, University of Kansas Press, 1983); Arnold M. Howitt, *Managing Federalism* (Washington, Congressional Quarterly, 1984); Allen R. Hays, *The Federal Government and Urban Housing* (Albany, State University of New York Press, 1985); Marshall Kaplan, and Peggy Cuciti (edited by), *The Great Society and its Legacy* (Durham, Duke University, 1986); Robert A. Divine (edited by), *The Johnson Years*, vol. 1 (Lawrence, Kansas, University of Kansas Press, 1987).

⁽¹⁰⁾ See Charles M. Haar, *Striving for the Great Society: Lyndon Johnson's Reshaping of the American Dream* (Dehli, Phi Press, 2015), 69.

the Ecumenical Center of Agàpe (1946-1948) [Fig. 3.3, 3.4]; the houses in Monterinaldi (Florence, 1949-1963) [Fig. 3.5], the district of Sorgane in Florence (1957-1966) [Fig. 3.6], the Community Village "Monte degli Ulivi" in Riesi (Caltanissetta, Sicily, 1962-1968) or the costume section of the Italian pavilion for Montréal Exposition (Montréal, 1967). Those were some of Ricci's best-known projects that let him apply his 'forma-atto' ['form-act'] design method and experiment 'anonymous architecture'⁽⁸⁾.

What current scholarship on Leonardo Ricci has not sufficiently highlighted so far is the identification of a common thread in his research from the community projects to macrostructures: the refinement and improvement of the 'form-act' in the constant merging of his theoretical and applied research. And this is what this investigation aims to fill via the analysis of our case study. Ricci's belief in that design method lay within the discipline of Urban Design, for in it he found the balance between architecture and planning, between the architect and the so called anonymous, that is, between the collective and the individual dimension. Between 1968 and 1970 Leonardo Ricci led a team of architecture students at the University of Florida (UF) in Gainesville to design the Miami-Dade Model City Programme. The project aimed at requalifying a neighbourhood of 100.000 residents, of whom 95 percent Black. The Model Cities (MC) Programme, first supported by the US President John F. Kennedy, was reformulated by President Lyndon B. Johnson's legislative reform agenda 'War on Poverty'⁽⁹⁾. Passed by Congress in 1966⁽¹⁰⁾, it consisted in an ambitious federal urban aid programme, with new impetus for the Department of Housing and Urban Development (HUD)



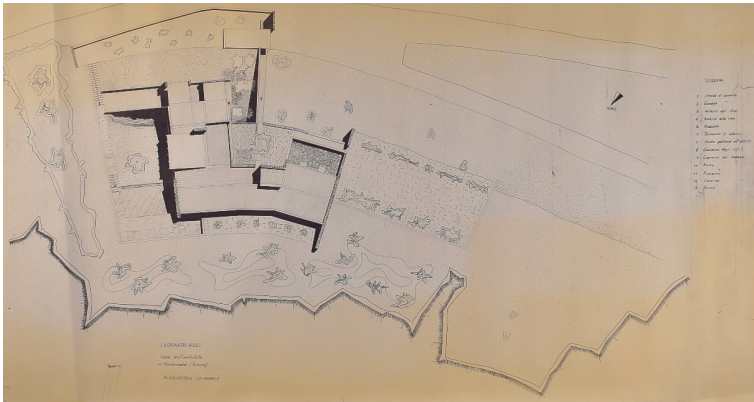
3.3

Page 25 of "Logbook" n.1 (1938-1952), collection of articles, and published pictures of the general plan and the model of Leonardo Ricci's Ecumenical Center of Agape, CSR



3.4

Leonardo Ricci, sketch titled "Veduta delle 'celle'" ["View of the 'cells'"], 1948, CSR



3.5

Leonardo Ricci, Ricci Study Home, planivolumetric, CSR

3.6

Picture of the building type D "La Nave", pictures by Giuliano Gameliet, CSR



⁽¹¹⁾ The programme concerned 150 US cities, to be renewed in five or ten years, and aimed at designing neighborhood units to improve the lives of people in areas with a significant lower level of infrastructures, health, housing, recreation, and educational standards. MC succeeded in fostering a new generation of mostly Black urban leaders and enhanced the participated design of a community environment orderly pleasant and attractive with adequate neighborhood facilities, able to increase the productivity for the city they belonged to. On the MC: Bernard J. Frieden and Marshall Kaplan, *The Politics Of Neglect: Urban Aid from Model Cities to Revenue Sharing* (Cambridge, MIT Press, 1975); Jody H. Schechter, *An Empirical Evaluation of the Model Cities Program*, degree thesis (Ann Arbor, University of Michigan, 2011); Bret A. Weber, Amanda Wallace, "Revealing the Empowerment Revolution: A Literature Review of the Model Cities Program", *Journal of Urban History*, 38 (2012), 173-192; Susanne K. Schindler, *The Housing that Model Cities Built: Context, Community, and Capital in New York City, 1966-76*, PhD. dissertation, ETH Zürich, 2018. On the theme of participation in the MC: Mandy Isaacs Jackson, *Model City Blues: Urban Space and Organized Resistance in New Haven* (Philadelphia, Temple University Press, 2008); Maki Brian Smith, *Fighting Poverty Together: The War on Poverty and the Fault Lines of Participatory Democracy*, PhD dissertation (San Diego, University of California, 2015). Quotation taken from Model Cities (chicagohistory.org) (last accessed October 2023).

⁽¹²⁾ On the definition of Urban Design and its pioneers in the US: Brent D. Ryan, *The Largest Art. A Measured Manifesto for a Plural Urbanism* (Cambridge-MA, MIT Press, 2017).

⁽¹³⁾ *Ivi*, 9-13.

⁽¹⁴⁾ See Patrick Anderson, *The President's Men* (Garden City, N.Y., Doubleday, 1968); Edward C. Banfield, "Making a New Federal Program: Model Cities, 1964-68," in *Policy and Politics in America*, edited by Allan P. Sindler, (Boston, Little, Brown, 1973), 129-131.

"to improve the coordination of existing urban programs and provide additional funds for local plans" and "comprehensive planning, involving rebuilding strategies, rehabilitation, social service delivery, and citizens' participation"⁽¹¹⁾.

The American city planning education and the Urban Design⁽¹²⁾ multidisciplinary applied research spreading in the Sixties and Seventies in the US enhanced the mutual action of municipality and universities at different levels. The Miami-Dade project, formulated and pursued thanks to the involvement of the academy, allows us to tackle questions such as how an academic project responded to the divergent requests of MC staff and the Citizens' Task Forces; how the plan envisioned the relationship between physical infrastructure and viable social structure in the community, while also considering unrealised proposals against an actual debate on the relationship between municipalities and universities, research and action, experts and citizens.

Johnson's Government and Education

As Ricci's project arose from his academic work, a brief focus on the connection between Johnson's politics and education is necessary. For the Miami-Dade MC Programme, the plan had to be both grounded by theoretical research and realised as an outcome of applied research on the city of the XXI century. In the MC, scholars were indeed asked by President Johnson to develop public policy alternatives⁽¹³⁾. From its inception in 1964, Johnson's 'Great Society' represented how he envisioned the renewal of the country, mostly centred on urban and social issues. The relevant policies, focusing on better housing, safer streets, and greater opportunities for minorities, were permeated by a strong reliance upon special Task Forces, that had to assist the President in fulfilment and completion of his duty⁽¹⁴⁾. Therefore, he selected his 'Brain Trust' composed by experts from Harvard and MIT, tasked with both analysis and testing of his policy on public investments, especially in education, mass transit, housing, social disorders, and environment. By the Fall of 1964 fourteen Task Forces existed; they had to write reports to the President, whose responsibility was to implement on a political level the results of the reports.

Pleased with the legislation the Task Forces had helped to promulgate, in 1965 Johnson commissioned a new set of Task Forces as the previous programmes had all been adopted, even sometimes modified, hence the first part of his plan was over.

The 'Task Force approach' fit in with the methods for projecting the social experimentation results of the time: scientists helped in formulating risk evaluations through scientific methodology, thus "moved from the business school

curriculum to a social science activity taught in the universities"⁽¹⁵⁾. This also meant that the Great Society programmes were often experiments in government activities, which increased the programme's failure risk, as it happened for Ricci's Miami masterplan.

As the MC, across time, implemented a complex system that coped with the federal and local realities, so did scholars act on different levels and played different roles in the programme's evolution. They had directive roles as those of Charles Haar⁽¹⁶⁾ (Harvard) and Robert C. Wood⁽¹⁷⁾ (MIT), who led the first Task Forces and were entrusted with the elaboration of the first Model Cities report that addressed the main principles of the programme⁽¹⁸⁾, Bernard Frieden (MIT)⁽¹⁹⁾ and Daniel P. Mohniyan⁽²⁰⁾ (Harvard) – whose study on the conditions on the Black population had a significant influence on the President's thinking – in the following Task Forces. The same scholars engaged others as staff directors: for instance, Chester Rapkin, hired by Wood for his specialism in housing as professor of city planning at the University of Pennsylvania, assembled a team of five consultants to write papers addressed to the White House⁽²¹⁾. If other scholars offered a critical reading of the Model Cities Program⁽²²⁾ with further studies, others such as Ricci were directly involved on the field.

The connection between Johnson and academia concerning Urban Renewal can be explained through the the Harvard-MIT Joint Center for Urban Studies (JCUS), where Haar, Wood, Mohniyan, and Frieden worked. Indeed, together with Harvard, which established the first degree programme in Urban Planning in 1929⁽²³⁾, the MIT had a pioneering role in the history of education in both architecture and urban planning since 1931⁽²⁴⁾. At MIT, from 1957, Dean Pietro Belluschi had been trying to improve the educational standards to face the expansion of the profession of the architect due to the economic growth and technological change, and to create a new group of scholars composed of architects, engineers, critics, and artists to find new architectural solutions for the crisis of modern architecture based on social, economic, physical, and structural studies. At the end of 1957, MIT had its Center for Urban and Regional Studies, and focused its research activity on the physical environment of city and region. The Center's concern was on the metropolis as a worldwide phenomenon and on its inadequacies and confusions that affected human life in the city. The same chaos Ricci felt in Italy was the same that affected American cities and Pietro Belluschi well expressed the issue in "The physical environment of city and region. The proposed focus of the Center for Urban and Regional Studies" dated September 20, 1957⁽²⁵⁾. Pietro Belluschi's revision of the teaching and investigation methods in urban planning of 1957 anticipated the JCUS' new interdisciplinary approach

⁽¹⁵⁾ Haar, *Striving for the Great Society*, 12.

⁽¹⁶⁾ Charles M. Haar was Professor Emeritus of Harvard Law School in 1991 and a pioneer in land-use law whose scholarship focused on laws and institutions of city planning, urban development, and environmental issues. See: Charles M. Haar: 1920-2012 - Harvard Law School | Harvard Law School (last accessed December 2022).

⁽¹⁷⁾ See: Wood, Robert Coldwell, 1923-2005 – Special Collections & University Archives (umass.edu) (last accessed December 2022).

⁽¹⁸⁾ The MC draft report written in December 1965 by Wood and Haar proposed a new "demonstration city program" based on three main principles: "the concentration of available and special resources in sufficient magnitude to demonstrate swiftly what qualified urban communities can do and can become; the coordination of all available talent and aid in a way impossible where assistance is provided across the board and men and money must be spread thin; the mobilization of local leadership and initiative to assure that the key decisions as to the future of American cities are made by citizens who live there, and to commit local leadership [...] to a comprehensive attack on urban problems, freed from the constraints that have handicapped past efforts and inflated their costs". US President's Task Force on Urban Problems, "Proposed Programs for the Department of Housing and Urban Development," December 1965, quoted in Frieden, Kaplan, *The Politics of Neglect*, 43.

⁽¹⁹⁾ See: In Memoriam: Bernard J. Frieden | MIT School of Architecture + Planning (last accessed December 2022).

⁽²⁰⁾ Daniel P. Mohniyan joined President John F. Kennedy's administration in 1961. He served as an Assistant Secretary of Labor under Presidents Kennedy and Johnson, devoting much of his time to the War on Poverty. In 1965, he published the controversial Moynihan Report then left the Johnson administration to teach Land Use at Harvard.

⁽²¹⁾ Frieden and Kaplan, *The Politics of Neglect*, 38.

⁽²²⁾ See Robert C. Wood, "Model Cities: What Went Wrong - The Program or its Critics?", in *Neighbourhood Policy and Programmes*, edited by Naomi Carmon, (Berlin, Springer, 1990), 61-73.

⁽²³⁾ Frederick J. Adams and Gerald Hodge, "City Planning Instruction in the United States: the pioneering days, 1900-1930", *Journal of the American Institute of Planners* 31, 1 (February 1965), 43-51.

⁽²⁴⁾ See Lawrence J. Vale, *Changing Cities: 75 Years of Planning Better Futures at MIT* (Cambridge-MA, SA+P Press, 2008).

⁽²⁵⁾ Pietro Belluschi, "The physical environment of city and region. The proposed focus of the Center for Urban and Regional Studies", September 20, 1957. MIT Institute Archives and Special Collections (MIT from now on), AC400, box 6, folder 1.

⁽²⁶⁾ Kevin Lynch rearranged his idea of 'city design' and elaborated the model of the 'poly-centered net', which presented a barrier to conventional Urban Design, whether modernist or traditional, that depended on a static model of city form to sustain its formal quality. 'City design' represented for Lynch the alternative to the common practices of unitary Urban Design. On Lynch's studies on the metropolitan form: Kevin Lynch, *A Theory of Good City Form* (Cambridge, MA, MIT Press, 1981), re-published with the shortened title *Good City Form* in 1984.

⁽²⁷⁾ Joint Release Harvard-M.I.T. JCUS, March 4, 1959. MIT, AC0069_195903_009_0001, box 1.

⁽²⁸⁾ Frieden and Kaplan, *The Politics of Neglect*.

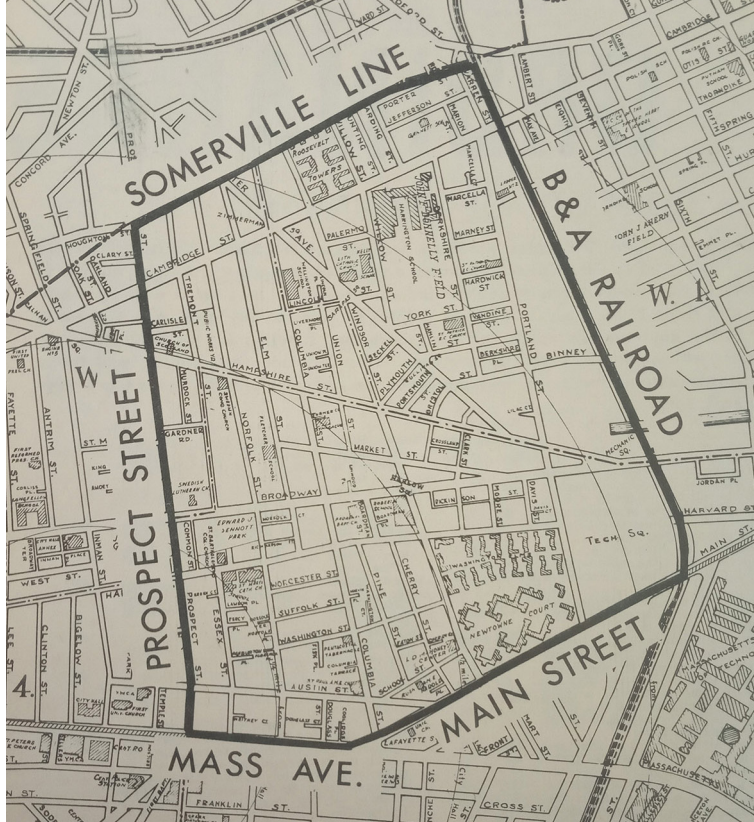
⁽²⁹⁾ Per In Kepes' course materials and space were manipulated in pursuit of aesthetic meanings free of the functional and technological pressures that could pre-empt the designer's thinking. Kepes' 'studio work' foresaw to experience all visual techniques useful for the architects to communicate their design ideas, combined with History of Art and Architecture. That kind of work fostered the skill of studying the rhythm of forms, reproducing it, drawing the expansion of a form by analyzing its inherent structure, natural structures and their variations, possible variations in architectural forms, forms, and counter-forms. The design idea emerged from the drawing and not vice-versa. A couple of years after Pietro Belluschi's deanship end (1965), in 1967, György Kepes founded at M.I.T. the Center for Advanced Visual Studies (CAVS) by collecting a lot of work done by the JCUS. See György Kepes, "The New Landscape in Art and Science", *Art in America*, 43 (1955), 34-39. György Kepes, *The New Landscape in Art and Science* (Chicago, Theobald, 1967).

⁽³⁰⁾ See Christopher Alexander, *Notes on the Synthesis of Form* (Cambridge-MA, Harvard University Press, 1964); Christopher Alexander, "From a set of forces to a form", in *Man-Made Object*, edited by György Kepes, (New York, Braziller, 1966), 96-107; Christopher Alexander, *A Pattern Language: Towns, Buildings, Construction* (New York, Oxford University Press, 1977). See also: Christopher Alexander and Martin Manheim, "HIDECS 2: A Computer Program for the Hierarchical Decomposition or a Set with an Associated Graph", M.I.T. Civil Engineering Systems Laboratory Publication no. 160 (Cambridge-Ma, 1962); and Christopher Alexander, "HIDECS 3: Four Computer Programs for the Hierarchical Decomposition of Systems Which Have an Associated Linear Graph", M.I.T. Civil Engineering Systems Laboratory Research Report R63-27 (Cambridge-MA, 1963).

and studies in Urban Design, especially enhanced by Kevin Lynch. Full Professor of Urban Planning at the MIT, Lynch was one of the founders of the discipline of Urban Design in the US, who coordinated the revolutionary research project titled "A study of the perceptual form of the city aimed at assisting the designer to create better urban environment" (September 1954-September 1957)⁽²⁶⁾. In the discipline of Urban Design Harvard and MIT merged their investigation aims by focusing on technological innovation in the city and region, comparative analysis of historical and contemporary cities, applications of research strategies to comprehensive transportation problems, urban growth, and structure. This last point also included the special problems of the interdependence of activities in urban areas, urban and regional problems in developing countries, methods of public and private control over urban change, social values and the community, Urban Design, decision-making and the planning process in metropolitan communities. Several were the publications reporting the JCUS investigation results as Bernard J. Frieden and Marshall Kaplan's *The Politics of Neglect. Urban Aid from Model Cities to Revenue Sharing* (1975)⁽²⁸⁾.

Robert C. Wood was a member of the MIT Political Science Department, became Undersecretary of HUD in 1966, and was appointed Secretary on January 2, 1969, then returned to MIT after three years of service in Washington, to become the JCUS Director in 1969, when he also resumed his post as Head of the Political Science Department. Once Chairman of MIT's Urban Coordinating Group, he contributed to the interrelation between many activities of the JCUS and of HUD. As Director of the JCUS, Wood succeeded Moynihan, then appointed by President-elect Nixon as Chairman of the new Council on Urban Affairs. Moynihan, Professor of Education and Urban Politics at the Harvard School of Education, provided distinguished leadership for the JCUS since becoming Director in 1966. While Haar was chair of Johnson's newly formed National Task Force on the Preservation of Natural Beauty, Wood was a member of Kennedy's Task Force on Urban Problems and chairman of Johnson's Task Force on Urban and Metropolitan Problems.

The premise of all the JCUS research projects lied in the new basic visual forms, concepts, scientific tools, and techniques. At MIT the influences among all the arts in the design process, combined with the study of the History of Art and Architecture, gave birth to a new methodological approach to Urban Design, while the course in Form of the City introduced aesthetic problems: spatial relations and perceptual elements were analysed through group discussions, observation in the field, and special project work. That and the interdisciplinary approach to Urban Design education, Kevin Lynch's funding ideas, and the course of Visual



3.7
Cambridge Model Neighborhood, Cambridge-MA, 1968, MIT,
MIT Planning Office, Series III, box 12, AC 205

Design supervised by the painter and designer György Kepes⁽²⁹⁾, also impressed Leonardo Ricci, who was Boemis Visiting Professor of Architectural Design at MIT in the Spring term 1959-1960, when the JCUS was also established. On the 'studio work' taught by Kepes, on Christopher Alexander's new theories and applications on the generative matrices for urban forms, and on the teaching methods he acquired at MIT, Ricci based his belief on morphological generations in architecture avoiding *a priori* forms⁽³⁰⁾, defined in his 'form-act' design method⁽³¹⁾. This saw Urban Design as the invention of temporalised space for individual and collective life in relation to the Mumfordian equation "city=sign of the integrated social activities"⁽³²⁾ to design desirable spaces for human acts⁽³³⁾. That transfer between theoretical and applied research demonstrates a strong connection between theory and practice in Ricci's work, which was continuous and biunivocal over the course of his entire career.

The JCUS investigation core were housing problems and among all the research activities focusing on the Joint Center's investigation fields, several were the publications consistent with the investigations aims⁽³⁴⁾. Frieden became also the coordinator of the Cambridge MC plan (1966-1969) which submitted the "demonstration city" project for the Cambridge Model Neighborhood in 1968⁽³⁵⁾. It was one of the first plans conceived within the MC by academics, who developed it with the help of students, following the multidisciplinary approach to Urban Design enhanced by the JCUS [Fig. 3.7]. Furthermore, in the Sixties, at MIT, as at Columbia and Berkeley, mathematical models became a reference to architectural or urban problem-solving, while complex systems and computational models produced softwares to analyse human dynamics which became the main tool for the data collection on MC. The collection of data by means of computational methods had to precede and shape renewal projects⁽³⁶⁾.

MIT introduced a new research approach to the technological factors which, more than others, affected the form of the city and could bring possible in-

⁽³¹⁾ The name Ricci gave to his design method can be translated into 'form-act': the name suggests the conception of form from the analysis of human acts, since it concerned the study of the human acts and activities before any predetermined morphological conception.

⁽³²⁾ Giovanni Klaus Koenig, "Leonardo Ricci e la 'casa teorica' (alla ricerca di un nuovo spazio architettonico)", *Bollettino Tecnico - Rassegna bimestrale fondata nell'anno 1936*, 7-8 (August 1958), 3-12.

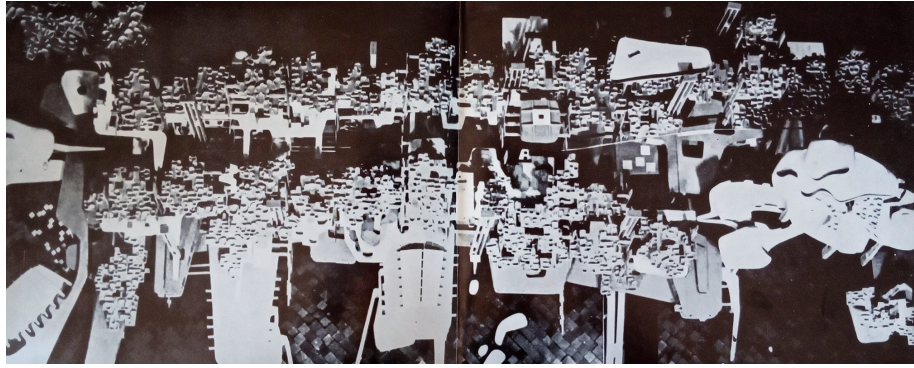
⁽³³⁾ Ricci, "Space in Architecture: the visual image of environment", 7-11.

⁽³⁴⁾ Among them: Kevin Lynch, *The Image of the City* (Cambridge-MA, Technology Press and Harvard University Press, 1960); Kevin Lynch, Donald Appleyard and John R. Meyer, *The View from the Road* (Cambridge-MA, MIT Press, 1965); Lloyd Rodwin, *Housing and Economic Progress* (Cambridge-MA, MIT Press, 1961); Sam B. Werner, *Streetcar Suburbs* (Cambridge-MA, Harvard and MIT Press, 1962); Nathan Glazer and Daniel P. Moynihan, *Beyond the Melting Pot* (Cambridge-MA, MIT Press, 1963); Oscar Handlin and John E. Burchard, *The Historian and the City* (Cambridge-MA, MIT Press, 1963); Charles Abrams, *Man's Struggle for Shelter in an Urbanizing World* (Cambridge-MA, MIT Press, 1964); John Friedman and William Alonso, *Regional Development and Planning* (Cambridge-MA, MIT Press, 1964); Bernard J. Frieden, *The Future of old neighborhoods* (Cambridge-MA, MIT Press, 1964).

⁽³⁵⁾ The complete documentary papers are kept in MIT, MIT Planning Office, AC 205, Series III, box 12.

⁽³⁶⁾ The complete documentary papers are kept in MIT, *Jerome Wiesner papers*, 1949-1983, MC 420, box 97.

Leonardo Ricci, MODEL I: Harbor-center with water-sea-earth communication routes, model of the synopia of the 'City of the Earth', picture of the model, Pennsylvania State University, 1965, CSR, folder 'USA'



novations in the field of transportation and future changes resulting from the development of automatic processes. It included the use of the network and information theory pioneered by the departments of mathematics, physics, and electrical engineering. These were useful to understand the way various factors affected the growth of cities. The research used the MIT IBM-704 computer in exploring theoretical models of possible urban forms to study various alternatives for the movements of goods or of people, or to simulate patterns of growth or of land use. Such a programme represented the first large-scale attempt to use computing techniques to study the dynamics of urban development⁽³⁷⁾. Computers were a relatively new instrument adopted to analyse, process data, and relay results to other machines through primitive forms of email⁽³⁸⁾.

The Miami-Dade Model City Program

Impressed by Ricci for the urban plan for the popular CEP neighborhood of Sorgane in Florence (1957), his successful book *Anonymous (XX century)*⁽³⁹⁾, and his skills as educator⁽⁴⁰⁾, the Architecture Chairman Arnold F. Butt and the Graduate School Dean Professor Linton E. Grinter convened Ricci as undergraduate research professor of Urban Design at the Department of Architecture and Fine Arts of the University of Florida in 1968.

To design the Miami-Dade MC project Ricci applied the synopia of the 'City of the Earth'⁽⁴¹⁾ to a concrete case study and grounded both his educational and design methods he had previously experimented at MIT (1959-1960) and at Pennsylvania State University (1965-1968) [Fig. 3.8].

The plan had to solve the important social issues of the black communities in the underdeveloped areas of the ghettos⁽⁴²⁾, within the MC political programme, by applying interdisciplinary research and providing clear structural evaluations. Before accepting his assignment at UF, Leonardo Ricci had become the Director of the Italian Urban Institute in Florence and decided to carry on his experience in Gainesville to establish a viable Urban Design programme there. Ricci, Daniel P. Branch, and Riccardo Morandi, founded the Urban Design course and the Urban Design Centre at UF, where architects and students could work with worldwide known Urban Design experts, supported by the Urban Studies Bureau which provided a computing centre, sociological study data, economic research facilities, and other experts in related fields. In 1968 Ricci was active both in Italy and in the United States and during the revolt he decided to fight on the students' side. In Italy he led the student revolt to a solution by formulating the "Ricci-Eco motion"⁽⁴³⁾, while in the United States he suggested a way to

⁽³⁷⁾ M.I.T. Office of Public Relations, "For release in papers of November 17, 1957". MIT, AC400, box 6, folder 1.

⁽³⁸⁾ Haar, *Striving for the Great Society*, 45.

⁽³⁹⁾ Ricci, *Anonymous (XX century)*.

⁽⁴⁰⁾ Ricci's ability to grasp the students' approval towards his teaching methods and his colleagues' appraisal in the US is well-known and evidenced by several letters kept in Casa Studio Ricci.

⁽⁴¹⁾ "City of the Earth" is the translation of the Italian "Città della Terra", the first part of the title given by Ricci to his unpublished book describing his model of the future city.

⁽⁴²⁾ Ricci's studies' focus -both in Italy and in the U.S.- was urban segregation: in the U.S. the suburbs were the symbol of the mass society that caused discrimination between whites and blacks, not allowed to live in the suburbs. To Ricci urban renewals based on interdisciplinary and participated urban design processes were needed to build a new society and avoid alienation. Ricci, "Ricerche per una città non alienata", 39-51.

disrupt the conventional academic hierarchical order precisely working out the plan for Miami with his students. Indeed, in Gainesville Ricci was the director of the Urban Design Centre⁽⁴⁴⁾ and during the 1968 movement he coordinated architecture students to work with a group of different experts on a real design theme concerning social problems that put the roles of professor, students, scholars, politicians, and future inhabitants on an equal level, thus realizing the ideal of anonymous architecture he had been fostering. It referred to the conviction, inherited by Michelucci, that the architect should disappear in front of architecture, acting on an equal level with the other professionals involved in the project and with its future users, to transform the rationalized function in a natural functionality. In that way it was possible to realize buildings which seemed spontaneously arisen from the place where they stood, and not by the hand of their architect.

Besides, in the final project report, Ricci suggested to improve the structure of the University by subverting the relationship between university and society⁽⁴⁵⁾: the theoretical and applied research in Urban Design had to be enhanced with interdisciplinary study centre to formulate hypotheses, and with laboratories to test models. The laboratory was real society while the users its testers⁽⁴⁶⁾.

If the plan fitted into a broader framework of international studies which had produced, in those years, a great deal of research and hypotheses on the new dimension of the city⁽⁴⁷⁾, Ricci moved from concrete needs to develop the project by means of urban matrices representing the social, economic, and physical structures supporting the urban life continuous flow⁽⁴⁸⁾.

The project was addressed to requalify the metropolitan Dade County in Miami⁽⁴⁹⁾, a 95,000 black neighborhood, which lacked in design features, landmarks, and historical sites. It was designated as the largest Model City of the country where living conditions were hard and the lack of planning guidelines and legal restrictions caused its growth in successive waves: discrimination kept Miami's black community in its 7.3 square mile ghetto and between 1960 and 1965 the area changed from 50% white and 50% black to 100% black⁽⁵⁰⁾.

The programme had to be realised thanks to a mutual action of the municipality and UF since it had a long tradition of social involvement in the community, primarily in education and agriculture, then in Urban Design. The UF Architecture Department proposed a course of action which could have revolutionised the MC program proposing a field station in the Model City. Physical and social planners, assisted by consultants from various fields as Urban Geography, Social Psychology, Cultural Anthropology, Sociology, Political Science, Health Planning, Welfare Planning, Economics, Soil, Structural, Mechanical, Civil and Transporta-

⁽⁴³⁾ Ilaria Cattabriga, "Leonardo Ricci and Umberto Eco. The Merging of Parallel Visions on the Scientificity and Openness of Experience in the 'Ricci-Eco Motion'", *Histories of Postwar Architecture*, 10 (January 2022), 82-117.

⁽⁴⁴⁾ UF Alumni Association, Gainesville – Florida, "Ricci", *Impressions Newsletter, University of Florida - Dep. of Architecture*, 3 (1969). In the Urban Design Center Ricci promoted the decentralization of powers and the same fight against bureaucracy he was living in Italy where he signed the so-called 'Ricci-Eco motion' during the 1968 revolt in Florence that recognized the faculty as an 'open place' where all the education categories could have developed the exchange of ideas, the vote was the equal instrument to decide the future of the faculty to establish a democratic and balanced system. Giovanni Bartolozzi, *Leonardo Ricci: nuovi modelli urbani* (Macerata, Quodlibet, 2013), 16.

⁽⁴⁵⁾ Ricci accepted Grinter's call on the condition to do "experimental teamwork with students for a real problem in a real society" (Leonardo Ricci, "Architecture at an urban scale: Ricci and Morandi at the University of Florida", 1, CSR).

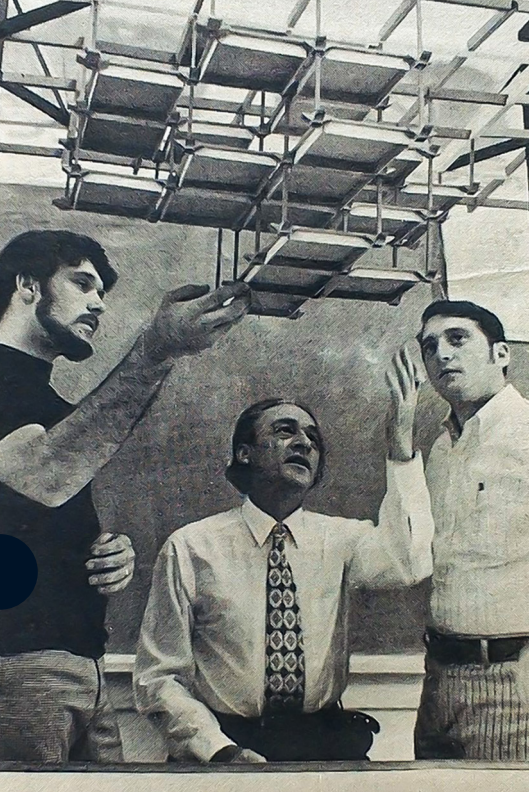
⁽⁴⁶⁾ Ricci, "Architecture at an urban scale", 1, 2.

⁽⁴⁷⁾ It counted a large group of visionary projects that can be considered in many cases the result of the harsh social contestation towards urban policies. A strong gap had been created between architecture and urban planning, so many experiments fielded by architects as Paolo Soleri, Kenzo Tange, Buckminster Fuller, Aldo Rossi, Arata Isozaki, Manfredi Nicoletti, Sergio Musmeci, Archigram, and Yona Friedman -to cite only some of them- enabled by the technological discoveries and the new frontiers outlined by space missions, filled the void. Reyner Banham, *Megastructure: Urban Futures of the Recent Past* (London, Thames and Hudson, 1978).

⁽⁴⁸⁾ See Ricci, "Space in Architecture", 7-11; Maria Grazia Dallerba, "Città della terra: recherches d'urbanisme, Faculté de Florence", *L'Architecture d'aujourd'hui*, 36, 128 (November 1966), 54-56; Giampietro Giuseppe, "Thony Eardley e Leo Ricci: tra Stile Internazionale e Post Modern", *Parametro*, 123-124 (1984).

⁽⁴⁹⁾ Reviewing Ricci and his students' project, the Special Assistant for Urban Design Ralph Warburton of HUD said the "UF was one of the 'few schools' looking at the problem of urban design from such an overall view, from the state scale down to such specifics as air conditioning. It was a complex and very comprehensive program". Warburton added that unless its budget was enlarged for research, such model cities and new ideas would have remained at the academic level. However, it could have been possible for UF to get research funds from HUD if it had kept growing in the direction it had taken. The total budget allocated to HUD was \$ 2 billion. Warburton recognized in Ricci's project its flexibility and potentiality to be adapted for rural areas, small towns and big cities". Chris Schauseil, "Dr. Leonardo Ricci may not resign", *The Florida Alligator*, (February 2 1970).

⁽⁵⁰⁾ John Toppe, UF Alumni Association, Gainesville – Florida, "Model City", *Impressions Newsletter, University of Florida - Dep. of Architecture*, 4 (1969).



3.9

Leonardo Ricci with the fifth year students (Philipp Crannel and Lawrence Alan Mackson) studying the Miami-Dade Model Cities Program; picture published in *The Florida Alligator*, April 24th 1970, CSR

tion Engineering and Landscape Architecture, worked together to determine the location of the first housing units and study constructive solutions for facilities and dwellings. The staff had to collect the data to develop the physical facilities components and had to start the project by processing the data. The design had to result from the collaboration of the Urban Design team, led by Ricci and Morandi, who worked with twenty graduate students of physical and social planning disciplines [Fig. 3.9-3.10], with the MC Staff, the Citizens' Task Forces, and the residents of the area, involved in the project development and evaluation.

The project's goal was to find the relationship between the planning of infrastructures and a viable social structure in the community so as to develop a new method based on the relationship between Housing, Education, Social Science, Economic Development, Health, Recreation, Crime, and change the usual habit to treat the physical planning for these forces separately.

Ricci and Butt submitted the proposal immediately after Ricci's arrival in Gainesville in 1968. In spite of several meetings with the MC director Mr Gordon Johnson – Ricci soon deemed the organisation of the programme as a hierarchical, bureaucratic system made of agencies, regional and federal boards managing waves of federal and private money, paying no attention to the community's needs⁽⁵¹⁾.

In April 1969, the MC Staff and the Governor Board decided not to begin the project in January 1970, because the social studies and the collection of computational data took time. As a result, the original project and scope were restrained to a smaller MC area in Tampa⁽⁵²⁾, where UF had a second branch. In that project the main design principles of the Miami masterplan, were defined. Indeed, the description of the guiding principles of the Miami plan were described in the Tampa report. In Tampa the design team worked on the urban renewal project of the existing university structures⁽⁵³⁾, where C. Randolph Wedding, project architect of the American Institute of Architects for the Presbyterian Village, asked the Department of Architecture to study an alternative scheme based on the latest concepts in Urban and Architectural Design⁽⁵⁴⁾. From a didactic point of view, the goals of the projects were to present a new theory to the students in which urban design was approached not only from the aesthetic or the economic points of view, but as the synthesis of different possible structuring of human acts and activities⁽⁵⁵⁾. Ricci's aim was to teach the teamwork where teacher and students were all researchers, even at different levels of knowledge and experience, and to show that design was a complex process made of varied components, and that any component could not be hidden, separated, or forgotten.

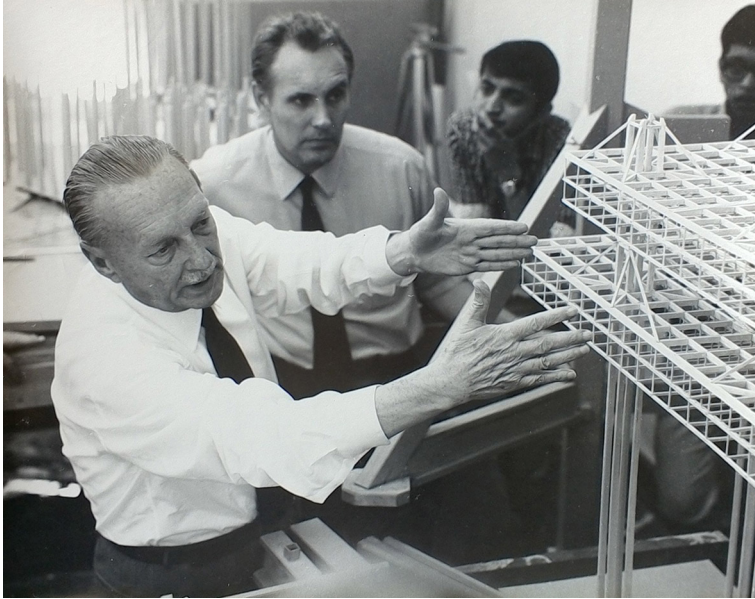
⁽⁵¹⁾ Letter from Ricci to Johnson dated April 11, 13, 14 1969, "Floridian journal", CSR. The "Floridian journal" was a series of notes and reflections Ricci began on April 11, 1969, on the plane from Gainesville to Miami.

⁽⁵²⁾ Ricci, "Architecture at an urban scale", 2.

⁽⁵³⁾ That was an opportunity denied to Ricci's Italian students, that represented a weakness in Italian architectural education. On Ricci's opinion about the weaknesses and lacks of the architecture schools' educational offer: Ricci, "Architetto: per quale società?", 2-3.

⁽⁵⁴⁾ That project precisely allowed the UF to create an Urban Design Center in the Department of Architecture.

⁽⁵⁵⁾ Ricci dedicated the first month of work with the fifth-year students to the explanation of the results of his theoretical investigation on urban problems carried out at the Institute of Urbanism in Florence, and in collaboration with the Pennsylvania State University, as Ricci specified in his typescript "Architecture at an urban scale: Ricci and Morandi at the University of Florida", 2.



3.10

Riccardo Morandi with the fifth year students studying the structural system for the Miami-Dade Model Cities Program; CSR

Riccardo Morandi reached Ricci University of Florida in Gainesville in 1970, one year after the start of the new graduate programme in Urban Design. The Urban Design Studio needed the contribution of one of the world's finest and most creative structural designers, a highly capable engineer who introduced substantial innovations in the field of large structures and devoted most of his valuable study and applications to prestressed concrete⁽⁵⁶⁾. Riccardo Morandi studied and supported Ricci and Branch's program with new structural systems which could make large-scale urban projects economically feasible.

As an example, it is impossible to separate the components of structure and technology from those of space and aesthetics. For this reason Engineer and Professor Riccardo Morandi was engaged as a member of our team for part of the second term. He controlled our hypotheses and our design from both the constructive and the economical points of view⁽⁵⁷⁾.

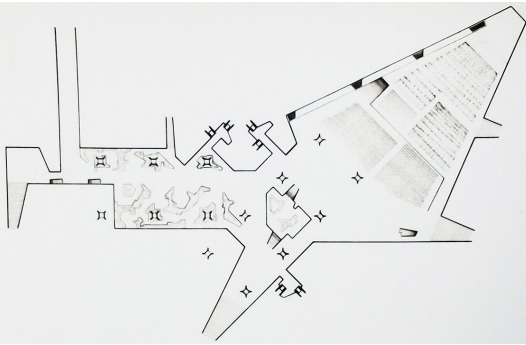
Ricci denounced some problems in the work with the students at the beginning since they had no urban design education and came from different schools and different cultural and technical backgrounds.

The project for Tampa tried to solve the problems of growth and change due to an increased need for educational facilities which arose from new trends towards tertiary activities and the related problems of alienation that occurred in the university absence of rules, caused by bureaucracy. Those problems could have been overcome with the use of scale grouping, the main tool used to achieve the goal: it included geographic and demographic features and encompassed five levels to be designed in phases: territory, megalopolis, town, neighborhood, group and habitat. From the largest to the smallest, each succeeding scale unit was a subunit of the previous larger one and the infrastructure integrated the communication and transport systems that tied the different levels together. At certain junctures of different scale levels, the nodal points of the exchange towers served as interconnective links⁽⁵⁸⁾. They

⁽⁵⁶⁾ See: Giorgio Boaga, Benito Boni, *Riccardo Morandi* (Milano, Edizioni di Comunità, 1962); Lara Vinca Masini, *Riccardo Morandi* (Roma, De Luca, 1974).

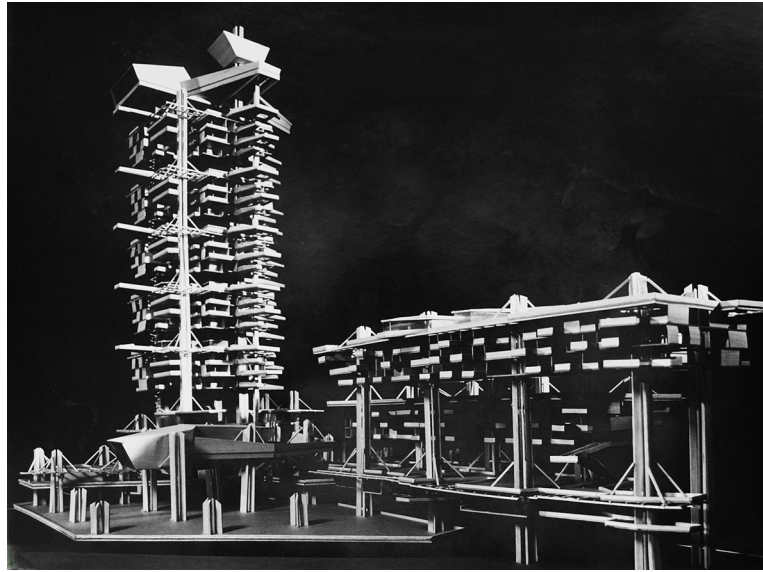
⁽⁵⁷⁾ Even though we do not know how Ricci knew Morandi, in this paragraph Ricci tells the reasons why he was involved in the Miami-Dade project. Ricci, "Architecture at an urban scale", 4.

⁽⁵⁸⁾ Ricci, "Architecture at an urban scale", 5.



3.11

Leonardo Ricci, positioning of the exchange towers in the Tampa plan, picture of the drawing, CSR



3.12

Leonardo Ricci, model of an exchange tower, picture, CSR

were an airport which could be a transportation link between megapolitan and territorial scales, a sports arena as point of communication between towns, megapolitan, or even territorial areas. Ricci specified in detail the goals of the project as follows:

We tried to develop a structural system competitive with existing ones from the economic standpoint which will also permit construction to proceed above the ground in an existing urban renewal area as well as in a newly developed project.⁽⁵⁹⁾

The first goal was to realize a theoretical study of an architectural system which could be applied to any equivalent urban area in Florida to allow the maximum flexibility and a phased solution, as all Model Cities projects had to be planned, meeting both the real needs and the economic potential of the real population [Fig. 3.11-3.12].

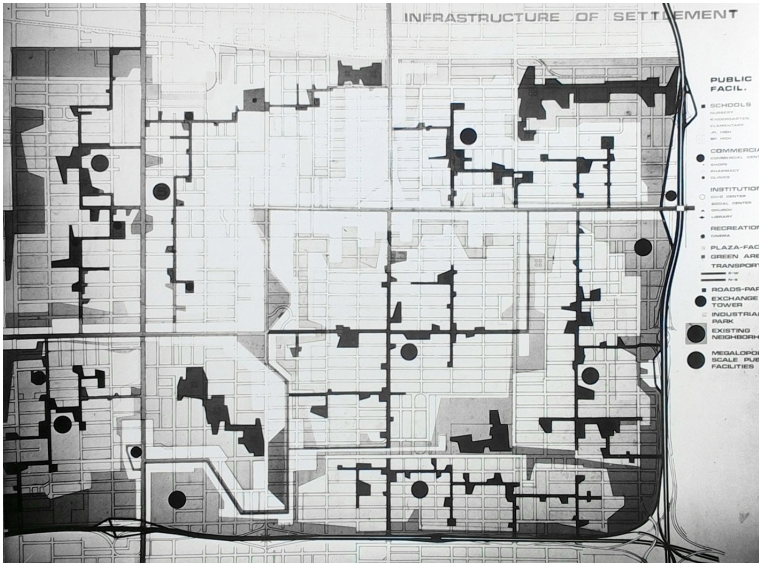
The original conception of the project was an infrastructure that mirrored Ricci's belief in decentralisation need both at the urban and social level. Moreover, Ricci's team offered a methodologically correct example of integral design addressed to Tampa and to the territory towards Miami supported by structural evaluations. Ricci declared his satisfaction about the project's results and the system of industrialisation, developed to manufacture forms for on-site casting: a very limited number of structural elements favored the economic and the social standpoints, and the residents could work on their own new community increasing the building construction pace⁽⁶⁰⁾.

Structure and infrastructure were the guiding design principles which must be clarified.

As for the structure, the introduction of the report written by the designers divided in workgroups (Territory, Infrastructure, Existing Skeleton, Habitat, Laboratories, Exchange Towers, Structures, New Unities) specified that Morandi examined a structural system for buildings of different uses which envisaged

⁽⁵⁹⁾ *Ibidem.*

⁽⁶⁰⁾ *Ivi*, 7-8.



3.13
Leonardo Ricci, masterplan of the infrastructure,
picture of the drawing, CSR

the adoption of the module for the units sizing and the prefabrication of all structural elements. This was designed to create spaces of various kinds and sizes, with maximum freedom of articulation of the volumes. The building consisted of a superimposed and suspended series of two-storey buildings. Their plan was born from the combination of different modules with a square base of 4x4 linear metres. In this way the plant could assume any geometric figure⁽⁶¹⁾. Morandi's project also singled out the building process: the work was accompanied by two models adaptable to different intervention scales⁽⁶²⁾.

A single body of the building was formed suspended and bound to vertical load-bearing elements which unloaded the weight on the ground, and which consisted of four vertical pillars, also arranged in a square on each side. The upper floor consisted of a system of prefabricated cross beams of prestressed concrete. The beams had a maximum length of ten meters, or three times the length of the module side. At the end of each beam an oblique tie-rod was placed to report the reactions of the beams to the nearest load-bearing element. The prefabricated primary and secondary beams formed a square mesh grid on which square plates of the size of the module were placed, which, once anchored to the underlying beams, formed the roof or floor surfaces of the overlapping and suspended units. Morandi's structural project singled out the structural details and building process: the work was accompanied by two models adaptable to different intervention scales⁽⁶³⁾.

The infrastructure had the fundamental function to connect the neighborhoods and had to grow in phases: the first one concerned parks and open spaces, roadways, and the gradual development of new habitats. In a second phase, a new high-speed communication-transportation system was to be inserted. The third phase saw the addition of further new public facilities in the neighborhood at the megalopolis scale, and, in a fourth phase, new habitat prototypes had to be designed to compensate the neglected or demolished areas⁽⁶⁴⁾ [Fig. 3.13].

At the territorial scale, starting from the analysis of the existing territorial infrastructure, made of communications, transports and facilities, the team

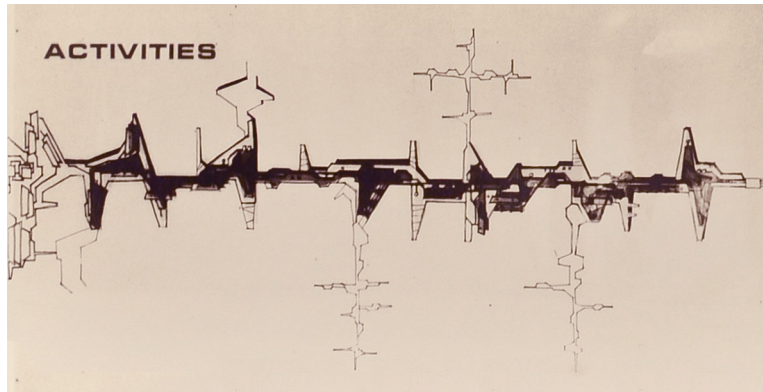
⁽⁶¹⁾ See the structural details in Riccardo Morandi, George Sheffer, John Preisler and John Toppe, "Study for the realization of a particular structural system for buildings of different uses", Department of Architecture and Fine Arts, Gainesville, University of Florida, May 15, 1969, CSR, 1-6.

⁽⁶²⁾ One model of the whole was in scale 1: 200 and one of detail in scale 1:10. They were intended to set out the criteria for the design of both the system itself and its method of execution. The calculations that led to the sizing of the various members, were carried out in compliance with the Building Code Requirements for Reinforced Concrete (Aci 318/63). Morandi, Sheffer, Preisler, Toppe, "Study for the realization of a particular structural system".

⁽⁶³⁾ For the entire structure, the principle of homogenization of all the main load-bearing structural elements was adopted. Therefore pillars, beams and tie rods behaved like concrete structures, all in the compression field. Deformations were reduced to a minimum due to accidental loads and those produced by own weights could be completely eliminated. All the flexed and tense structures underwent a preventive coercion treatment so that any tensile stress in the interior of the various members determined a variation in the field of compressions induced by the coercion. This resulted in an increase in the 'fatigue safety coefficient' of the steel and the conceptual certainty that there was no fear of damage to the steel due to concrete damage when the steel stresses due to accidental loads varied. Once finished the construction, a continue spatial structure had to be obtained thanks to the series of prefabricated elements assembled and protected by small concrete jets thanks to steel bars and post-tensioned cables. Riccardo Morandi, George Sheffer, Preisler and Toppe, "Study for the realization of a particular structural system for buildings of different uses".

⁽⁶⁴⁾ University of Florida, Department of Architecture, Urban Design Studio, Report on the downsized project for the Miami Model City Plan, Casa Studio Ricci.

Leonardo Ricci, masterplan of the developing activities in the Miami-Dade area opposing to the grid texture, picture of the drawing, CSR



recognized that the system running parallel to the ocean created a barrier between land and sea, expanding in a series of dividing 'walls'. Therefore, the project showed a major territorial infrastructure intersecting with minor secondary infrastructural systems at the megalopolis or town scale, connecting the land with the ocean. That comb-like system allowed the Floridian infrastructure to grow according to the inhabitants' needs. More importance was given to the main Interstates and Expressways highways and to the projection of land use. The north-south infrastructure was considered the principal system with three penetrations towards Miami: the main one linked the airport and the harbor with the town. A difference between the highway infrastructure at the territorial and town scales was accomplished and all the public facilities, services and industries were concentrated near the principal infrastructure, building a network serving the megalopolis scale. Furthermore, the designed system used the existing infrastructure to implement the multi-scaled complex system.

The fragmented existing system of green spaces as parks, recreation facilities and waterways, was also integrated with the infrastructure, even considering the demolition of vacant and dilapidated existing buildings. At the town scale, public facilities, services, and green spaces were designed to be integrated into the megalopolis with new systems of neighborhood infrastructures.

At the megastructural-megalopolis scale, with the removal of substandard housing and the clearance of open space, the team proposed the redesign of the existing traffic patterns by closing a number of streets to eliminate the grid texture of the settlement [Fig. 3.14]. Neighborhoods could be broken up to allow the sharing of open space among groups of four-six blocks without any traffic interference, but served by shops, playgrounds, green spaces. The megastructure⁽⁶⁵⁾ was intended as the means to connect and create a three-dimensional land use. The exchange towers, high buildings serving as communication nodes, contained parking and rapid transit terminals, were located along the north-south and east-west expressways and allowed people to move rapidly on public transports⁽⁶⁶⁾.

If the infrastructure became the skeleton of the settlement morphology, at the town scale the junction between the infrastructure and the settlement became evident. The town was the area between the north-south and the east-west

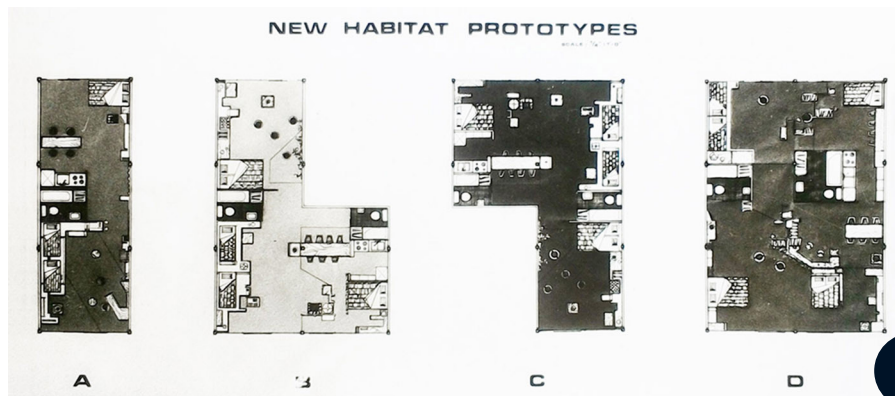
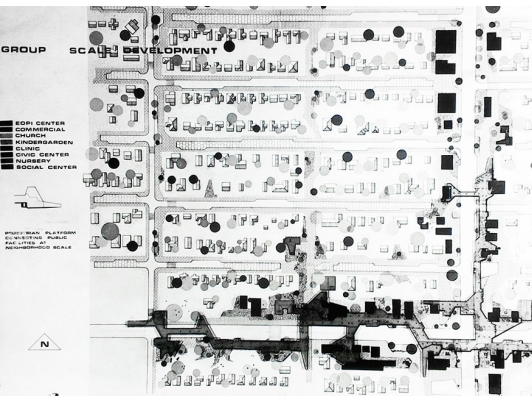
⁽⁶⁵⁾ In his writings Ricci uses both terms "megastructure" and "macrostructure" alternatively, this is the reason why the two words are used as synonyms.

⁽⁶⁶⁾ Ricci, "Architecture at an urban scale", 9.

⁽⁶⁷⁾ University of Florida, Department of Architecture, Urban Design Studio, Leonardo Ricci's team report on the downsized project for Tampa, CSR.

⁽⁶⁸⁾ The concept of "Open Formativity", which strongly influenced Ricci's work, was firstly theorized by Benedetto Croce and then by Umberto Eco's master Luigi Pareyson. See: Vittorio Sainati, *L'estetica di Benedetto Croce. Dall'intuizione visiva all'intuizione catartica* (Firenze, Le Monnier, 1953); Luigi Pareyson, *Estetica. Teoria della formatività* (Firenze, Sansoni, 1954); Henry Focillon, *Vie des Formes* (Paris, Presses universitaires de France, 1964); Gian Napoleone Giordano Orsini, *Benedetto Croce Philosopher of Art and Literary Critic* (Carbondale - Illinois University Press, 1961), trans. *L'estetica e la critica di Benedetto Croce* (Milano, Riccardo Ricciardi, 1976); Eugenio Battisti, Contributo ad una estetica della forma, tesi di laurea in filosofia, 7 luglio 1947 edited by Giuseppa Saccaro Del Buffa (Firenze, Olschki, 2017).

⁽⁶⁹⁾ About Ricci's work on megastructure models see Bartolozzi, *Leonardo Ricci: nuovi modelli urbani*, 12-20 and Toppe, "Model City".



expressway, where new housing prototypes had to be realised and modified by means of repairs, modernisation processes, requalifying interventions, and new constructions.

At the neighborhood and group scale, the team identified seven neighborhoods, each designed as a self-sufficient insula belonging to an organism with public facilities owned by the neighborhood. The project integrated both the infrastructure light industrial and offices units near the habitat units to narrow the distance between inhabitants and their working places. Larger industrial developments were also proposed for the border areas [Fig. 3.15].

At the habitat scale, the team elaborated two housing systems through which the team arrived at the precise definition of the modular structure: each used the same modular panels, fitted into the structural system space frame, and met the applicable minimum property standards. One series of habitat was designed traditionally, whereas the second group was intended as a transition from the old to the new so as to avoid a loss of community roots and a social gap. One further phase was thought by Ricci's team to develop a third-phase habitat conceived as a more exciting and efficient living unit. A family could lease or buy an area within the space frame and assemble whatever type of habitat they desired⁽⁶⁷⁾ [Fig. 3.16, 3.17].

As it admitted a possible continuous growth, the project was driven by the concept of 'formativity' which implied the free growth of the city without reaching a definite form. The whole space had no specific function, it was open and arranged on different levels, where morphology suggested the possible uses of a space and avoided either a univocal correspondence between one space and one function or the general multifunction of the whole system⁽⁶⁸⁾.

The designers used different scales which coexist and realize the integrated space. Integrating the social and the physical structures, thus all human activities, with buildings and infrastructure, the project resulted into a real composition of life instead of aggregation of separate elements.

The realized plan derived from a masterplan at a regional scale which grafted the macrostructure into a territorial road system. The infrastructure and the macrostructure were perfectly inserted in the existing urban fabric: the first one was articulated on various levels from the large to the small scale, the second one built a unique system of public spaces as squares, parking lots and green spaces to connect the new designed part with the existing urban mesh⁽⁶⁹⁾. The

3.15

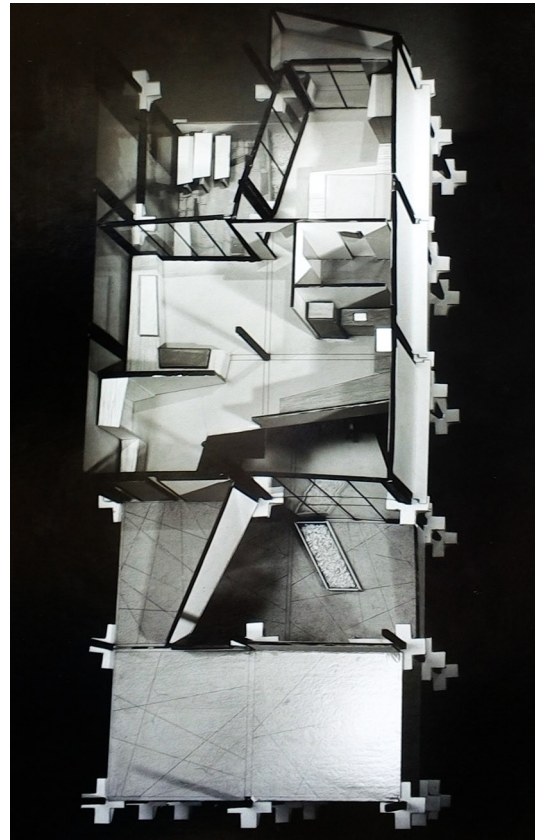
Leonardo Ricci, masterplan of the group scale development, picture of the drawing, CSR

3.16

Leonardo Ricci, Riccardo Morandi and the UF fifth year students, habitat prototypes A, B, C, and D, picture of the drawing, CSR

3.17

Leonardo Ricci, Riccardo Morandi and the UF fifth year students, model of a habitat prototype, picture of the model, CSR



macrostructure was visible on the masterplan: it appeared as a linear system in which infrastructures were systems organised on several levels, connections conceived at height.

Conclusion

The Miami-Dade project became a feasible model thanks to the structural system used by Ricci in many other projects: the structural blade, a linear sequence of shaped septa which guaranteed the development of the macrostructure in three dimensions to allow the development of the city block as well. The infrastructure needed a structural frame to enable the city's vertical expansion and, although Ricci and Morandi's structural report demonstrated the feasibility of the project⁽⁷⁰⁾, as it was supported by precise structural evaluations, its realisation was not possible.

After having submitted his proposal to the MC Task Forces, and having received the confirmation of its funding following extensive discussions with Mr Gordon Johnson, Ricci resigned from UF in 1972, as he saw his goal to translate his research in a concrete architectural experiment vanishing. Ricci had asked UF to recognise the Urban Design Studio "as the official instrument acting on behalf of the university to undertake urban design projects"⁽⁷¹⁾, and to give the Studio the right authority to develop a plan of the university. The UF President Stephen C. O'Connell refused to send grants and support the Urban Design Studio for what should have become a graduate programme to be discussed by the Department Chairman, Dr Butt, the Dean Robert S. Bolles, and Graduate Dean Harold P. Hanson. Ricci was also misunderstood and accused of revolutionary extremism and then forced to repatriate because of his work for the Black community. In 1972 he left Gainesville in protest.

In the archives only one report of the project was found, therefore it is possible to infer that Ricci's plan for Miami was not included in the Second-Round Cities, notified in August 1969 about the guidelines change when Part I was simplified and shortened, while Part II concerning the five-year projections was eliminated. It is true that Morandi's structural evaluations, dated 1970, could be part of the detailed evaluation plans, but the missing data caused a waste of time that stopped the original project.

The Miami-Dade project responded to President Johnson's call to requalify the nation's tumbledown infrastructure but consisted in the application of an academic exercise conceived during the 1968 revolt. In that period, public opinion did not identify with the need for urban renewal, and this might have worsened the perception of Ricci's team's megastructural and infrastructural project.

⁽⁷⁰⁾ Riccardo Morandi's detailed structural report is kept in CSR.

⁽⁷¹⁾ Schauseil, "Dr. Leonardo Ricci may not resign"; Connie Daniel, "Dr. Leonardo Ricci may not resign", *The Florida Alligator*, April 19, 1971.

The Academy actually guided from above the evolution of the program by supporting and influencing the Presidents' policies with the Task Forces reports and directed the MC 'afterlives' with the work of some scholars as Professor Daniel P. Moynihan and Barry Jackson. Moynihan was the author of the controversial "Moynihan Report" of 1965⁽⁷²⁾ which argued that the rise in black single-mother families was caused not by a lack of jobs, but by a destructive vein in the ghetto culture, which could be traced to slavery times and continued discrimination in the American South under the "Jim Crow laws"⁽⁷³⁾. The report concluded that the high rate of families headed by single mothers would greatly hinder progress of blacks toward economic and political equality. This then justified the Nixon administration's adoption of 'benign neglect' toward racial issues as they referred to Black America, causing rage and distrust in the US. In Jackson's case instead, after being hired by mayor Eugenia Flatow to design the New York Harlem MC in 1966, he came back to his academic work begun at Columbia, where he taught architecture graduate students. From that moment he published his studies on systems and processes in international journals, as issue number seventeen of *Zodiac* dedicated to the topic 'Architecture U.S.A.', that foresaw a special section titled *Problems of Renewal Planning and Design*⁽⁷⁴⁾.

About the MC critic, scholars as James L. Sundquist and David W. Davis were positively impressed by their investigation on the field of dozen of cities involved⁽⁷⁵⁾, whereas Edward C. Banfield or Floyd Hyde accused the programme to be a "somewhat academic exercise"⁽⁷⁶⁾. Banfield, Professor of Government at Harvard University, had a severe critic on federal programmes. He was appointed by President Nixon and selected a Task Force of academicians and officials who disapproved the MC for giving too much regulation and too little support, although it offered greater freedom to the cities⁽⁷⁷⁾.

In addition, the academy was also involved, even in part, in the failure of the programme when the MC Task Forces, thus the experts and scholars engaged, could not provide for the necessary data to start the project realisation, and did not respect times, which affected other professionals and scholars' works as Ricci and Butt's. This not only implied the impossibility to match the MC Task Forces' but also the Citizens' Task Forces' requests: the project was delayed and its aims did not respond to the people's direct needs, because projects dealt more with housing rather than with facilities, which people really needed to overcome their difficulties. The data processing marked a failure for Ricci's project whereas the intention to provide for facilities, instead of housing as other MC projects, marked a new potential design strength.

⁽⁷²⁾ Daniel P. Moynihan, "The Negro Family: The Case for National Action", Washington, D.C., Office of Policy Planning and Research, US Department of Labor, 1965.

⁽⁷³⁾ The "Jim Crow Laws" were state and local laws introduced between the end of the XIX and the beginning of the XX centuries that enforced racial segregation.

⁽⁷⁴⁾ Barry Jackson, "The Relationships between Needs are the Elements of Form", *Zodiac*, 17 (1967), 210-212.

⁽⁷⁵⁾ James L. Sandquist, David W. Davis, *Making Federalism Work* (Washington, D.C., Brookings Institution, 1969).

⁽⁷⁶⁾ Floyd Hyde, memorandum for Mr. John Ehrlichmann, Assistant to the President for Domestic Affairs, Subject: Model Cities Role in the "New Federalism", December 2, 1969. Quoted in Frieden and Kaplan, *The Politics of Neglect*, 207.

⁽⁷⁷⁾ Once attested that the MC Program was the only plan with serious negative effects "in the delivery of federal grant-in-aids to the inner city", Banfield and Hyde would have then transformed the MC from a Great Society Program to a New Federalism Program enhanced by Nixon. U.S. President's Task Force on MC, *Report, Model Cities; A Step towards the New Federalism* (Washington, D.C., U.S., Government Printing Office, 1970).

⁽⁷⁸⁾ The search for the synthesis of the arts led Ricci overseas, firstly at the M.I.T., where the newly founded discipline of Urban Design considered that variation in time and space to find new relations and effective ways to express morphological results in function of more complex processes open to the continuous change of human life.

Nevertheless, Ricci found in Urban Design and in the MC the balance point between architecture and urban planning, between theoretical and applied research, between the teaching of architecture and its practice. Even if hampered, both in Italy and in the United States, for his ambitious ideas, he had succeeded in pursuing and communicating his will to re-establish the role of the architect, in the in-between space separating the architect's stylistic statement and the anonymous, the collective and the individual dimension, again struggling to find the solution to his dichotomous research⁽⁷⁸⁾.

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