

# Guidonia: town of air and flight

EDOARDO CURRÀ, CESIRA PAOLINI\*

**Abstract:** In the ranks of the foundation cities of Lazio we have repeatedly noted how Guidonia represents an interesting anomaly. Out of the characters of the Mediterranean modernism of the foundation cities settled in the Pontine Plain, the new city was created to support one of the most important scientific centers for aeronautics. The housing units and the main public building represent typological experiments (terraced houses), designed by Giuseppe Nicolosi and Giorgio Calza Bini.

**Key words:** Terraced houses, Giuseppe Nicolosi, Giorgio Calza Bini, aeronautics.

## *A plan for a new town*

In the ranks of the foundation cities of Lazio we have repeatedly noted how Guidonia represents an interesting anomaly. Out of the characters of the Mediterranean modernism of the foundation cities settled in the Pontine Plain, the new city was created to support one of the most important scientific centers expected by twenty years: the study and experience center for aeronautics. The planning officially began on March 11<sup>th</sup> 1935,<sup>1</sup> when Alberto Calza Bini, President of the Istituto Case Popolari (Public Housing Institute), informed the Board of directors that «having regard to the good technical-economical result of the buildings of Littoria», the Institute had been entrusted with the responsibility to study the town plan and the construction of a first group of buildings for the new town of Guidonia. Therefore, the city purpose was to provide housing for officers, non-commissioned officers and artisans employed at the center of aeronautical studies, already built at the airport of Montecelio. And it would have remembered in the name the Generale Alessandro Guidoni, missed while personally executing the testing of a parachute. Already six years earlier, in 1928, the Centro and the Direzione Superiore Studi ed Esperienze (DSSE) had been transferred to this

\* Edoardo Currà: Associate Professor of Architettura Tecnica, Sapienza University of Rome; email: edoardo.curra@uniroma1.it. Cesira Paolini: Assistant Professor of Architettura Tecnica, Sapienza University of Rome; email: cesira.paolini@uniroma1.it.

1. Minutes of the Board Meetings of the ICP Libro XXIV, pp. 434-436, Rome.

area of Lazio where an airport had already existed since 1916.<sup>2</sup> Later, in 1931, the same engineers of the Italian Air Force had studied a new comprehensive project, in which location and arrangement of structures were defined. Undoubtedly, a decisive role was played by the proximity of the railway. In fact, in order to avoid reducing the ground for the runway situated in the south, the study Centre was built in the north encompassing all the buildings in the military complex. Therefore, the railway structure became the boundary between the space intended for experimentation and research in the north and the one dedicated to the airport in the south. In the following years, the consequent arrangement of the centre influenced the planimetric layout of the city that would be built after a few years. The undeniable propaganda requirements, together with those of maximum precision, meant that the structures of the new headquarters of the DSSE were built with materials and construction techniques that allowed to highlight national expertise and capabilities in the construction sector. Among the buildings built for the centre, two became the symbol of the experience and expertise of the Italian technicians and workers in the field of construction. In both cases, the work had to be carried out with the highest level of precision, as the configuration of the buildings played a fundamental role in the actual efficacy of the experimentation conducted within them.<sup>3</sup> Hence, the town had to contribute to strengthening this image of modernity.

When Calza Bini announced the project, the basic guidelines of the program had already been drawn up, in agreement with the Minister for Public Works Luigi Razza, and the Ministry of Aeronautics under-secretary Giuseppe Valle. The latter had already reported to the Senate of the Kingdom of Italy in 1934 the decision to build the new town. At that time, the first three foundation towns had already been inaugurated – Mussolinia, today Arborea (October 28<sup>th</sup> 1928), Littoria, today Latina (December 18<sup>th</sup> 1932, growing to 50,000 inhabitants when designated as a province on June 6<sup>th</sup> 1935), Sabaudia (April 14<sup>th</sup> 1934) – and a fourth soon after to be inaugurated – Pontinia (December 18<sup>th</sup> 1935) (Fig. 1). The project team was made up of Giorgio Calza Bini, Gino Cancellotti and Giuseppe Nicolosi and coordinated by Alberto Calza Bini. In a few months, different hypotheses for the town plan were

2. CURRÀ 2007, pp. 99-111.

3. PAOLINI 2005, pp.29-44.

drawn up and right from the beginning it was possible to individuate some features that would remain the basis, also for further versions. Among the several documents conserved in the Istituto Case Popolari (Public Housing Institute) and in the Ministry of Aeronautics archives, at least three main versions of the town-plan for the new town of Guidonia can be identified, two of which having been drawn up previously as alternatives to the one adopted (Fig. 2 and 3). All the different hypotheses organize the layout starting from the main axis, as Nicolosi reports describing the town plan: «From the entrance at the Study and Experimental Centre, it stands out normally to the current road, a street that will constitute the main artery, with character residential, of the new Borgata and leading to the square. The orientation of this road is studied in so as to allow a vast view of the mountains of Tivoli right from the square».<sup>4</sup> It is interesting to highlight those aspects that appear to be fundamental in developing the urban form, and, above all, the specific feature of the *piazza* which is placed tangent to the intersection between two roads, via Lunardi and via Leonardo da Vinci. If on the one hand, the axis made up of via Leonardo da Vinci appears to cross through the *piazza* until *breaking* the terraced houses designed by Nicolosi into an overcrossing, on the other, on via Lunardi, the *piazza* itself opens up, achieved by the *pilotis*, the black marble loggia which supports the office block. This very protective and intimate feature is, undoubtedly, the result of a specific design choice which markedly differs from many solutions of that era and from the other already constructed foundation towns. The decision for the *piazza* to play a unifying position was also shown by the fact that other solutions had been rejected. They foresaw a symmetric square centred on the axis of via Leonardo da Vinci with porticos on each side and, above all, completely open on the tangent vehicular via Lunardi. The public offices that made up the civil nucleus of the new town were positioned right on the *piazza*. These included the Municipal Building of Nicolosi, the office building – Littoria House with the Littoria Tower, the cinema-theatre and the hotel with the bank and the post office designed by Giorgio Calza Bini (Fig. 4). The Municipal Building and the hotel, with the space for the bank and the post office, were positioned on the shorter sides of the *piazza*

4. NICOLOSI 1936, pp. 394-397.



Fig. 1. Via Leonardo da Vinci, the inauguration day of the town of Guidonia. In front, the wings of the avenue designed by Gino Cancellotti, in the background, the piazza with the Littoria Tower by Giorgio Calza Bini.

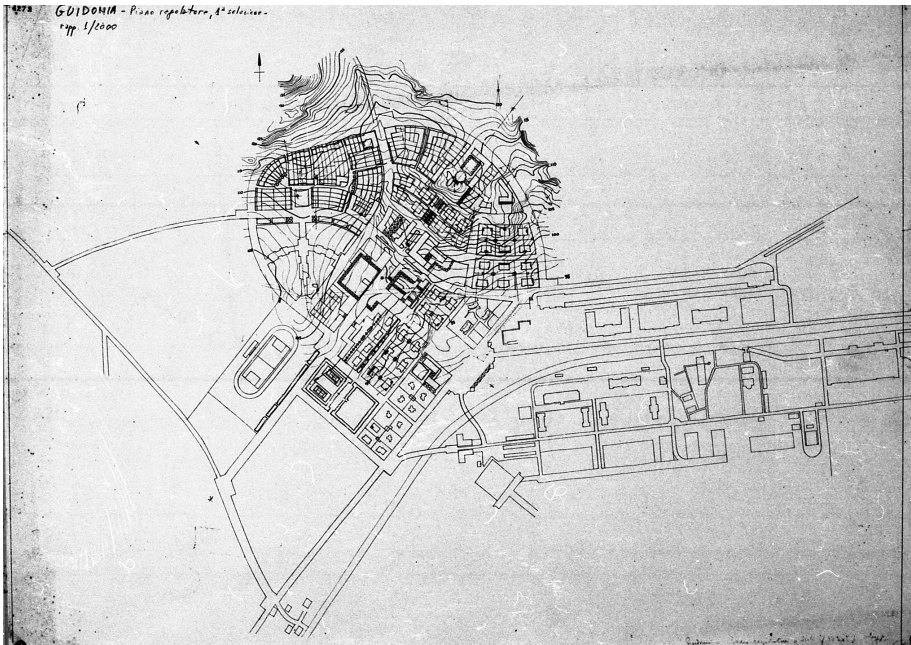
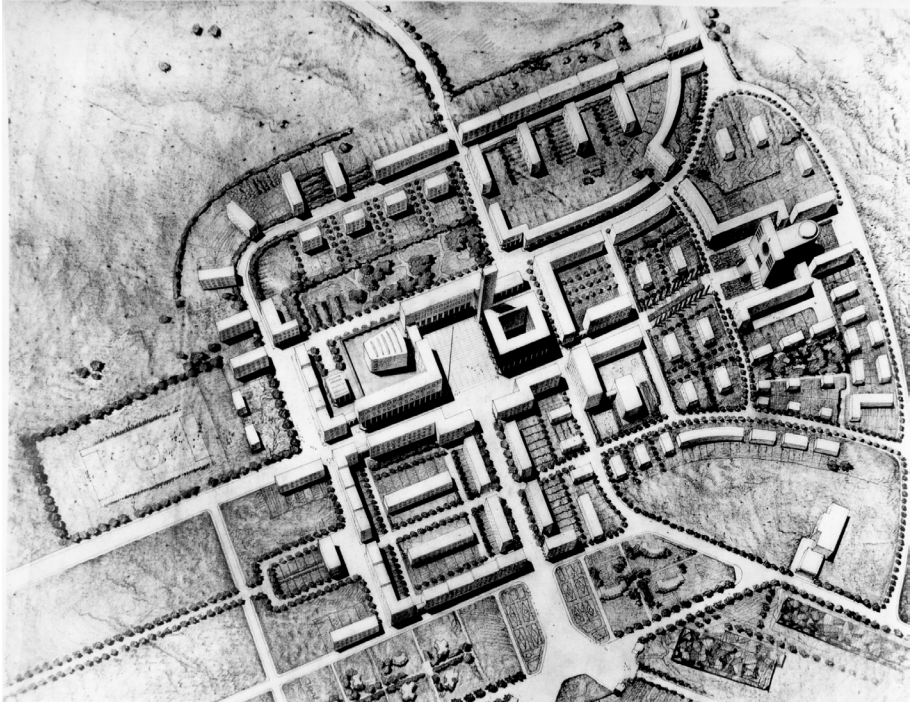


Fig. 2. The first draft of the town plan.





*Fig. 3. Axonometric view of the town plan of Guidonia.*



*Fig. 4. The municipal square, today Piazza Giacomo Matteotti, on the left the Municipal Building of Giuseppe Nicolosi and on the right the office building and the terraced houses by Giorgio Calza Bini.*

and were very impressive due to their travertine slab cladding and with the Littoria Tower, in Basaltina slab cladding, rising up between them. The volumes of these three buildings visibly contrasted with the lightness of the other two, bordered the longer sides of the *piazza*, and with the cinema-theatre which completed the side with the hotel. The residential building is a fifth building found behind the others, enhancing their volumetric mass. The external surfaces of the latter are plastered and painted, with deep projecting loggias and an entirely glassed in underframe. The loggias also continue on the shorter side of the *piazza*, towards the hotel, in the three bays making up the cinema-theatre façade. Behind the loggias in this corner of the *piazza*, a large glass wall allows one to view the cinema-theatre's double-height atrium. Finally, on the side opposite to the terraced houses, we find the office building. The upper floors of this edifice, with plastered and painted walls, lie on two rows of columns clad in marble and black plaster, quite set back compared to the façades, positioned on an almost square grid plan. The resulting space, although covered, allows for a wide sweeping view from the road to the *piazza* and for pedestrians to freely pass and strongly evokes the old municipal loggias. The smooth and light-coloured painted surface of the building, markedly elongated by the two upper floors appears, instead, to be in dialectic contrast with the tower's tapering shape. In this building, as correspondence between the Ministry of Aeronautics and the Istituto Case Popolari shows, the first floor should have accommodated the offices of the Fascist associations (Gioventù Littoria, Casa del Fascio, Opera Maternità e Infanzia and others), while the second floor hosts the offices of the main supply firms for the Italian Airforce. This was the last building to be constructed on the *piazza* as the Ministry and the Institute gathered the funds required for its construction by means of a subscription from the companies involved in the works for the town and the Airforce's supply firms. As well, for this reason, the definition of the spaces to be assigned to the associations and the various companies required more time than originally forecasted. The *piazza*, designed in this way, maintains the typical features of an Italian *piazza* of the medieval communes, as can be found in every foundation town. The symbols of municipal authority and autonomy, such as the *palazzo* or *loggia*, are, however, significantly dominated by the volume of the Littoria Tower, silent witness to a hierarchically supe-

rior power. Together with these aspects, the *piazza* of Guidonia shows, perhaps more clearly than in the other Pontine towns, its rationalist *piazza* 'nature'. The result of the development of the different phases of the planning where the various projects studied that remained as witnesses. This nature is reflected, at first in the volumetric design which, as mentioned above, is based on the creation of relationships between pure volumes by means of juxtapositions, intersections and counterpositions. Furthermore, each form, even monumental, clearly declares its defined and requested final use. In the Municipal Building, for example, the basement, to be used for the archives, has no openings, while the presence of the *portico* on the intermediate floor indicates what is to be the public area with the ceremony and festival hall. The ground floor of the terraced houses displays external divisions for fully transparent shops thanks to fine iron framed windows, while the privacy of the above apartments is guaranteed by the deep set of loggias on two floors. In the office building continuous ribbon windows correspond to the access corridors on the two upper floors towards the *piazza*, while on the external façade the openings are divided and made to measure depending on the size of the illuminated areas. Moreover, the cinema-theatre has its front façade towards the *piazza*, occupied by the double-height atrium and rehearsal rooms, glassed in with loggias that also serve as a roof corresponding to the main stairwell landings. Other than the construction of the residential housing in the new town, there was also foreseen the building of a series of public edifices and services such as the Carabinieri barracks, the market and the church. The relation between the new nucleus, the church and the test centre actually appears to be another focal point in the design. There are a number of proposals for the disposition of the two axes displayed in different projects, to finally reach the solution where it is provided that the avenue links the urban and the military centres, and the construction of a solid and monumental front on both ends with three span loggia structures. In general, the previous version provided for neither the front façade nor the headers. One of the trial site plans did not even foresee a building parallel to the avenue, but residential blocks with internal gardens. This modification shows how, during the drawing up of the project, a clear distinction was made between the main vehicular roads, with continuous and solid façades, and a network of secondary roads and pedestrian walkways,

with open courtyard space where, respecting the previous versions, more importance was placed on the green community areas rather than the private ones (Fig. 5). Indeed, in Guidonia, as in many of the foundation Pontine towns, an urban plan is easily recognizable involving: «the three civic elements – the presence of a hierarchy in the town made up of a main axis layout; a *piazza* or system of *piazze*; and the emphasis placed on a single centre, where the main public buildings are found».<sup>5</sup>

As far as the residential buildings are concerned, the young designers were inspired by the ‘company town’ model, developing its approach and typical rules. The residential housing was studied so as to provide different solutions that took into account the hierarchy and social role of the inhabitants<sup>6</sup>, and, indeed, «the residential buildings are, in part, small attached villas and, in part, lines of terraced houses, all, however, of a certain height and spaced according to social ranking, [...] housing for officers, officials, non-commissioned officers and works managers, tradespeople, etc».<sup>7</sup> The study of the housing blocks was carried out uniformly regarding the urban layout and perhaps, also for this, the construction of Guidonia clearly displays the close link between town-planning and architecture which is the hallmark of the foundation towns. Thus, the main axis made up of the wide principal avenue connecting the municipal square to the DSSE is highlighted and reaffirmed by the system of terraced houses designed by Gino Cancellotti and made up of a repetition of blocks, all the same, delineating the line of via Leonardo di Vinci. At the ends, towards the municipal square, their rectilinear longitudinal axis takes on a different image recalling that of propylaea; the partially empty ground floors to accommodate the commercial businesses on the *piazza* allow for the first floor columns to be seen, while the remaining two floors display a system of small projecting loggias compared to the main floor of the façade. Even in a composition scheme based on the repetition of the same block, the desire to conform it to the original morphology of the place resulted in a certain movement of the façades, as the volumes appear to be offset from each

5. MITTNER 2006, pp. 59.

6. The *Istituto Fascista Autonomo per le Case Popolari* (The Autonomous Fascist Institute for worker estate houses - later IACP) eventually designed and built 43 houses for officers, 166 for non-commissioned officers, 96 for office workers, 8 for caretakers and 21 for other different categories, mirroring the diversity of housing for that different population.

7. CALZA-BINI 1937.



other, but of the same height and, therefore to break up the austerity of the scheme, introducing a certain vitality. Windows of the same size are positioned along the façade, also marked by further wide openings allowing light to enter the stairwells protected by brise soleil screens; the rear façades, instead, are characterized by a series of loggias that face onto the green area. Other terraced houses, in this case conceived for the workers, were designed by Giuseppe Nicolosi in Lots 1 and 2 and positioned alongside the gallery buildings (*a ballatoio*), parallel to them. These buildings, only of two floors and planned to house four family units, are much smaller than the buildings along the main avenue and are developed along a longitudinal line of 18.30 metres. On the main façade, the linear and solid volume is markedly characterized by the presence of two small and deeply inset central loggias; a column on the axis of each creates a pleasing rhythm of openings which the light balustrades allow to arrive to the end of the floor. The result is a balanced symmetric composition with an empty centre divided into four parts and four windows positioned near the corners. Another four windows, this time centrally located, display, instead, in the rear, a regular rhythm which is fully in contrast with the ends. Overall, the solution strongly recalls the one Nicolosi later adopted for Building 5 of Lot 1 for the Breda village. The desire to distinguish the residential housing depending on the social ranking of the users, the possibility to experiment with layout solutions, together with the opportunity to investigate the design potential for the different residential typologies, resulted in the construction of Guidonia being open to all the different typology solutions for residential buildings. Positioned orthogonally to via Enea Rossi and destined to house the worker families, there are five gallery buildings, which though representing a functionalist reworking of the balustrade houses (*casa di ringhiera*) markedly differed. The project is mainly from Giorgio Calza Bini and Giuseppe Nicolosi (Building F1 of Lot 5), designed by Calza Bini, and is actually a gallery building with six dwellings per floor and two terraced houses flanking it, with two dwellings per floor. In this way, the emptiness of the gallery appears to be almost contained by more solid volumes placed on the ends, while the horizontal aspect of the composition is highlighted by the presence of light round columns which capture the continuing line of the floors. In front of the building of Calza Bini, on via Lunardi, we find the first

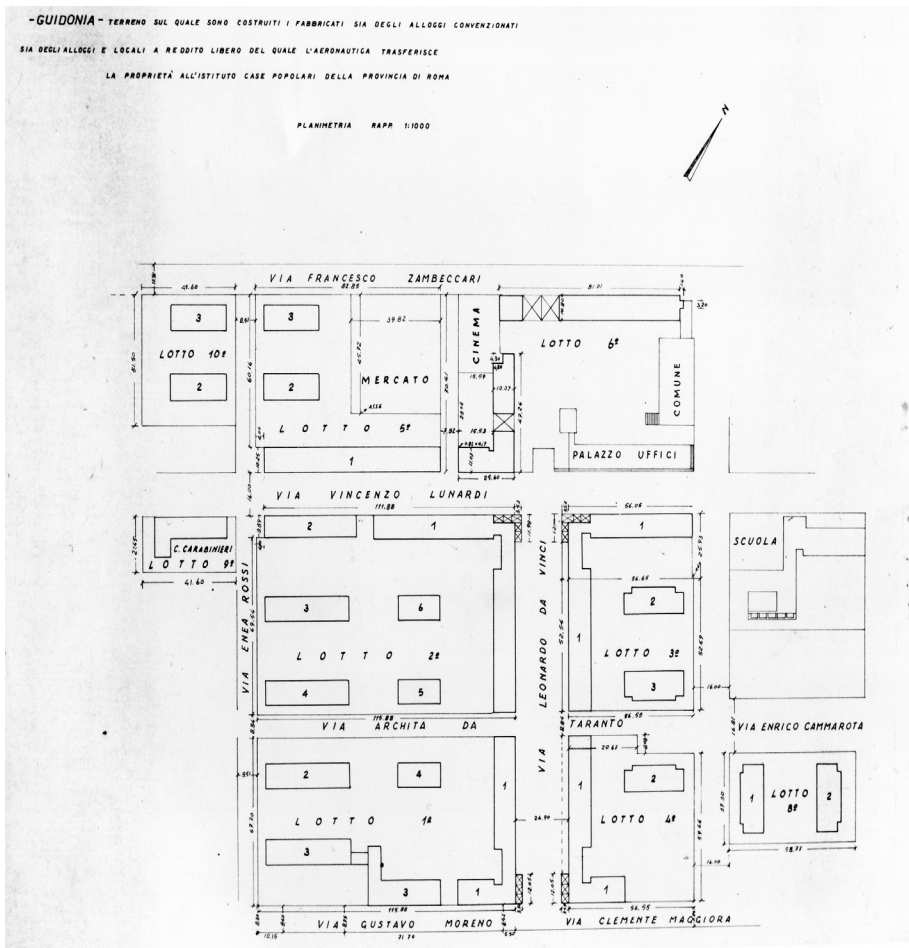


Fig. 5. Final site plan of the town, showing the lots and buildings.



*Fig. 6. The houses for the non-commissioned officers designed by Giuseppe Nicolosi.*

type of gallery structure (Building F2 of Lot 2) designed by Nicolosi. The three-storeys-high building has four dwellings on each floor with balconied galleries connected to the different levels by a stairwell which runs parallel to the galleries and the façades hidden between two load-bearing walls. The front displays a series of twin columns which support the galleries, creating an effect recalling a strongly classicist style. The rear façade displays three levels of loggias, corresponding to the larger dwellings, positioned symmetrically at the sides, and by a series of openings, all the same size, for the smaller dwellings. This solution of rear facades, with closing loggias at the ends and the sequence of identical openings, can also be found in the gallery houses designed for Latina (Littoria) between 1935 and 1936 in Lot 2, F5, F6 and F7. Identical to the Latina buildings, not only in their rear façade, but also in their layout, we also find the remaining gallery buildings (Buildings F3 and F4 of Lot 2, and F2 of Lot 1), also designed by Nicolosi, which provide a particularly interesting solution from a planimetric viewpoint. The six dwellings positioned on each floor have a wide balcony gallery with a curved stairwell of great sculptural importance placed in the centre of the building connecting the horizontal galleries at different levels. Thus, the three-storeys-high volumes appear to be carved out of the horizontal oriented galleries' façade and marked by the strong plasticity of the central dominating stairway. The adoption of the gallery structure attracted strong criticism «also from highly qualified people»<sup>8</sup> and Nicolosi immediately responded with a detailed report in which he analyzed all the measures adopted to overcome the recurring drawbacks of the gallery housing scheme. Both in the case of Littoria and in that of Guidonia, the attention Nicolosi placed on confronting this particular and much debated typology is clear. The number of floors, for example, is always limited (three or four), the same as for the dwellings (from four to six) so as to avoid an «excessive agglomeration on each floor»<sup>9</sup> and the galleries – positioned on the open façade of buildings separated by large intermediate green spaces – display a completely whole balustrade «because the lower part of the walls easily damaged by continuous passage is hidden from view».<sup>10</sup> For the terraced planned for the

8. NICOLOSI 1937, pp. 21-35.

9. *Ibidem*.

10. *Ibidem*.



officers and non-commissioned officers, Nicolosi outlined two solutions, both aimed at providing the residents with comfortable living spaces, internally and externally. From a planning point of view the two layout variations present a certain richness in the functional and urban scheme, also resulting from the quite large size of the dwellings. The balconies of the types A L8.2, L4.2, L3.2 and loggias in types B L3.3, L8.1, are provided for all the terraced houses and each entrance is protected from climatic devices by the overhanging projections of the balconies and loggias. The solution Nicolosi adopted in type B is particularly interesting, where the first level involves a deep set *alloggia* protected by a square-meshed *brise soleil* inset into the wall structure. This is the same as that later used in the ultra-economically essentialist housing for the buildings with four dwellings per floor in Pietralata II township – Tiburtino Santa Maria del Soccorso project.<sup>11</sup>

Guidonia, still today, in its foundation nucleus, testifies to how it was «an important laboratory where, the synthesis between a technical-scientific methodology and the aesthetic-architectural application was experimented with on an urban scale, but also [...] the place where the comparison between traditional and modern language, between the ‘old’ and the ‘new’, between monumentalism and rationalism, were all shown to their fullest».<sup>12</sup>

In conclusion, we find a relevant description of Guidonia in the words of Franco Storelli, observing that its architecture «can be seen as the end of a design road and, at the same time, as the beginning of another, more fascinating, where the basic geometric and formal rigour shifts towards the overcoming abstraction and rooting in place and in history».

### *Bibliography*

CALZA BINI 1937

Alberto Calza Bini, “Nazione ed Impero”, n. 10, 1937.

11. PORETTI 1988, pp. 24-44.

12. COCO 2006, pp. 3-4.

COCO 2006

Rosario Coco, *Le città di fondazione degli anni '30 del Lazio e della Sardegna*, "Architettura Città, Rivista di architettura e cultura urbana", n.14/2006, *Città pontine*, Agorà, La Spezia, 2006, pp. 3-4.

CURRÀ 2007

Edoardo Currà, *Cronologia ragionata*, in Edoardo Currà, Cesira Paolini (edited by) *Archeologie del Novecento*, Gangemi Editore, 2007, pp. 99-111.

Minutes of the Board Meetings of the ICP Libro XXIV, pp. 434-436, Rome.

MITTNER 2006

Dunia Mittner, *Le città pontine e le città nuove degli anni Trenta Principi della composizione urbana*", in "Architettura Città, a journal for architecture and urban culture", Camerino, n. 14, 2006, pp. 59.

NICOLOSI 1936

Giuseppe Nicolosi, *Il piano regolatore di Guidonia*, in "L'Ingegnere", n. 8, 1936, pp. 394-397.

NICOLOSI 1937

Giuseppe Nicolosi, *Le case popolari di Littoria nel quadro degli attuali orientamenti dell'edilizia popolare in Italia*, in "Architettura", January 1937, pp. 21-35.

PAOLINI 2005

Cesira Paolini, *Il Centro Studi ed Esperienze: caratteri della costruzione*, in Edoardo Currà, and Cesira Paolini (edited by), *Ingegnerie a Guidonia*, Gangemi 2005, pp.29-44.

PORETTI 1988

Sergio Poretti, *Edilizia popolare e razionalismo italiano. L'attività progettuale di Giuseppe Nicolosi tra il 1925 e il 1940*, in "Rassegna di Architettura e Urbanistica", n. 55, 1988, Roma, pp. 24-44.