‘...comforting, erotic smoothness ... the offspring of a regime of abstract, relentless calculation ...’

Peter Carl on the poetry of matrices

plus three other reviews

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ijp: The Book of Surfaces
By George Liaropoulos-Legendre with an introduction by Mohsen Mostafavi
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Reviewed by Peter Carl

There is some question as to whether this should have been a book or a wall (or, in the author’s terminology, ‘a developed surface’). The first two facing pages present the page layout of the work as a matrix of 9 rows and 18 columns (to which the page-numbering corresponds). An illustration that makes a rectangle of 3 rows and 7 columns in the matrix appears in the book as three-page blocks interleaved with the text. Moreover, ‘the matrix conditioned every aspect of this book’. The title of the book comes from ‘the row index $i$ and the column index $j$’ and from the designation ‘$p$, for point’ referring to the peculiar form of interrelatedness possessed by points on a parametric surface, determined by functions of independent variables (parameters). Observing that even the distribution of typographic characters articulates, or constitutes, such a surface, Liaropoulos-Legendre summarizes the work: ‘it resorts to several modes of writing [later qualified as ‘notation’] to fully convey a process of thought elaborated in parallel forms, including discursive essays, statements of computer programming code, printouts of datastreams, mathematical expressions and technical descriptions of numerically controlled fabrication processes, all of which offer alternate descriptions of the very same thing’.

The book takes the reader through simple matrices, parametric surfaces and the architectural implications. Although technically savvy, this is in no way a technical manual. It is rather a sequence of meditations upon our understanding of spatial order consequent to properly grasping the structure of such surfaces. ‘Every paragraph and diagram of this book belongs to ... a class of synthetic writing about the surface, from the surface, on the surface’.

The most provocative aspect of the work seeks to concoct a full reality from the properties of internally consistent surfaces. Insofar as ‘the [developed] surface is writing and figure in equal parts’, Liaropoulos-Legendre seeks to challenge the customary preference for depth and metaphor – ‘depth is good ... and the surface is bad [superficial]’. He speaks of ‘the bias against the surface ... the mistrust of the surface’ and of the ‘preference’ for depth and metaphor as a ‘habit of hoping’ for meaning behind ‘the immediacy of appearances’. Given that everything said about, or done with, these surfaces holds if they are considered part of reality, it is not clear why this argument needs to be offered. It occludes the distinction between certainty (the mode of relatedness of his surfaces – logical consistency; complexity) and truth (pertaining to the nature of reality; richness). This problem is a legacy of the ‘clear and distinct’ reason of Descartes (on whose *Principles of Philosophy* Liaropoulos-Legendre unfortunately relies for his understanding of ‘space’), and the way that this has cast all other forms of perception and understanding into ‘experience’. With this immediate legacy, via Kant and Fichte, Hegel struggled in his *Phänomenologie des Geistes* (1807); but the issue dates back to the different meanings of ‘universal’ in...
Aristotle's logical works and in his metaphysical and ethical works, and subsequently gravitates around the perennial effort to discover a universal logical language (clavis universalis) from Ramus to Russell and Wittgenstein. This confusion regarding levels of discourse/reality and regarding the nature of communication between the humanities and the sciences is hardly confined to architecture, whose enigmatic relationship to the computer, however, lies at the heart of its appearance in ip.

When Liaropoulos-Legendre simply declares 'I Love Matrices', I am with him. It seems to me the real – even unique – achievement of this work lies in the poetic domain. He writes well, with urbane wit, enthusiasm, intelligence; and, as with AA publications generally, the book is beautifully produced; its elegant economy is inversely related to the vertiginous openings of the imagination to which the reader/viewer is subjected. Liaropoulos-Legendre prefers his computing with as little interference as possible from 'pasteurized, off-the-shelf software'. Accordingly, the interleaving of code, matrices, and diagrams creates an experience analogous to studying quantum phenomena – the closer one gets to the fundamentals, the more mysterious do things become, the more one is required to draw upon aspects of imagination and thought that are distant from the explicit declarations of the mathematics or code. The pursuit of rigorous complexity (surface) solicits a ludic richness (depth) for the purposes of understanding and illumination.

The comforting, erotic smoothness of the preferred surface-profiles is the offspring of a regime of abstract, relentless calculation. The curves are rarely presented without evidence of the sober pulses of computation. Reminiscent of Duchamp's infra-thin more than Greenburg's flatness, Liaropoulos-Legendre's surfaces seem to require a persona as much fond of note-filled staffs as music. He professes the virtues of arduous wrestling with code, of its intrinsic beauty, and he lingers within the anticipation being the voluptuous surface hovers into visibility (see, for example, the demonstration regarding writing and drawing a matrix, from p16, and the discussion of curvature in terms of fragmented flatness, from p512). One sympathizes with his disdain for the form-merchants of 'blob' architecture, the prolecytes of formal combinators, the kitsch of CAD/Photoshop, or the incomplete thought of datascapes; and one is amply persuaded that the 'difficult, arid and elusive' surface offers a poetics of wit, beauty and rigour. At the same time, the reader/viewer is reminded of Kafka's hunger-artist, whose masterpiece consists in starving to death.

The chaolllage of contemporary culture creates the conditions for hunger-artists who seek a moment of integrity without having to abjure the context within which they find themselves. Instead of exploring the 'interdisciplinary' character of the practical imagination, and its capacity for collaboration in moving between systematics and poetics, this book adheres to architectural design as a matter of securing 'form'. However, there is no question that the quite remarkable and, to me, profound little corner in a plan at the end of the book could only have arisen from the meditations which precede it (incidentally, numbers 4 and 5 in the plan need to move SE and N, respectively). Like ip itself, the originality and multivalent richness of this configuration inspire prolonged reflection, silencing reservations.

Submission to abstract discipline depends tacitly upon the 'depth' of those ordering phenomena which give birth to creative insight and account for its recognition as such. Language is more a context for being understood than for making statements. As much as Liaropoulos-Legendre's 'book of surfaces' orchestrates visual, textual, mathematical matrices embedded within each other – the abstract male's bachelor-machine – even more it marvellously exemplifies the chthonic, female determination of matrix, as womb, fulfilling Kircher's project to construct a metaphor-machine.

After training at Princeton and two years as a Prix de Rome fellow, Peter Carl taught at the University of Kentucky and, since 1979, at Cambridge University. At Cambridge he teaches graduate design and is co-convenor of the graduate programme in the history and philosophy of architecture.
When I arrived in Santiago last year, at the airport designed by Emilio Duhart, Chile’s most distinguished architect of the second half of the twentieth century, I was met by one of the authors of this book with the words ‘welcome to the end of the world’. With few direct connections to New Zealand, Australasia or the East, Chileans feel at the very edge of Western culture. This welcome compilation of the work of the Valparaíso School celebrates a group of architects, artists and poets who have forged out of that context work of international relevance, and unforgettable resonance.

In 1952 a group of young architects – led by the charismatic Alberto Cruz, an architect and sometime fellow-student and collaborator with Duhart, and Godofredo Iommi, a poet who was born in Argentina – moved from the Catholic University in Santiago to teach at the Catholic University at Valparaíso, at the invitation of the Rector. Cruz and Iommi had met only a year before but had formed a strong friendship, united by common ideals in the teaching of the subject. They lived in Viña del Mar, close to Valparaíso, and began immediately to put their ideas into practice. Broadly, poetry and art, rather than the technical solution of practical problems, was seen as the primary generator of architectural form, and all their teaching was conducted with that aim in mind. As a result of their participation in conferences and a number of exhibitions, the teaching methodology was soon famous in Latin America, but it was not until 1970 when the Ciudad Abierta (Open City) was founded that they became internationally known.

The work to have come out of the architectural school is of three kinds. There have been conventional buildings, at least in terms of their professional methods of procurement and funding; these consisted of houses and churches for the most part, for which Cruz and his associates have been responsible. Both the drawing style and the built work reflect the influence of Le Corbusier. Then there have been constructions that have arisen out of the transvers – travels that students and staff have undertaken. These remarkable works are often of a temporary nature but form part of a larger project entitled Amerida: a South American version of the wanderings of Aeneas, as recorded in Virgil’s Aeneid. The route of the first 1965 Amerida was determined by mapping the Southern Cross on to an inverted projection of South America, re-conceptualizing the inherited colonial view of the continent. Finally, and most famously, there is the settlement itself, the Ciudad Abierta, constructed by students and staff from 1970 at Ritoque, along the coast from Valparaíso.

Among the landscape interventions at Ritoque, the cemetery, constructed from 1976 onwards, deeply inscribed into the landscape, is most memorable. The nearby Palacio del Alba y del Ocaso (Palace of Dawn and Dusk, 1982) appears as an elaboration of its material and procedures, and consists of a series of carefully positioned free-standing walls and an intricately conceived brick floorscape. There is the sense that although the forms are unusual and seemingly wilful, nothing has been left to chance and everything has been most carefully considered, tested and reconsidered. Many of the building forms at Ritoque arise out of the study of the elements – wind or light – rather than exploiting views of the landscape. Here, the floorscape was determined by the channelling of water, though in the end the baths that were intended were never installed. The plan reveals a surprising diagonal symmetry, and the height of the walls is maintained at a consistent 2.2m, but the experience of walking in the spaces made by the walls is one of continuous surprise. One part of the...
experiment is its structure: the curved walls rest on a delicate fringe of bricks set in sand. How the installation will perform in a severe earthquake is yet to be tested, but the effect at Ritoque is reminiscent of the beautiful remains at Fatehpur-Sikri, Akbar’s sixteenth-century palace complex in Rajasthan (again much influenced by water engineering). In both, each adjustment to wall plane or floor surface surely obeys rules that are not merely pragmatic, but to determine what those rules were is almost impossible for the uninitiated. In the case of Fatehpur-Sikri there is a complex iconography which has proved fertile ground for scholars; at Ritoque the rules of the game are even more difficult to determine, but the fact that the architecture has been made with a passionate conviction is palpable.

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Of the buildings at Ritoque, the Music Room, of 1972 but with subsequent alterations, is formally highly controlled, and curiously moving, while the Hospedería del Errante (the Wanderers’ Lodge, reconstructed in 1995) seems to reflect Deconstructivist procedures most closely. The building represents an investigation into the qualities of light and of wind – 16 spiderly diagrams with Spanish notation are illustrated here – and we are told that models were tested in a wind tunnel. There are prominent free-standing brises-soleil on the northern edge, with a variety of openings and fixed stained-glass insertions. These protect an interior which itself has many different light sources. The main volume is roofed with open timber lattice trusses on a regular grid and, while the northern window-wall is perfectly standard, the edges and interstices are highly complex and irregular. Visiting this and earlier buildings, it is almost impossible not to see them as harbingers of the sculptural experiments of Gehry and others, which they pre-date in certain cases by some years. When a paper on the Ciudad Abierta was published in AA Files 17 in 1989, a project by Christine Hawley for housing at Peckham in South London appeared a few pages before. In Hawley’s project the aesthetics of distress would appear to have been explored for its own sake, but the interest of the Valparaíso School is not aesthetic: it is the result of poetic researches which happen to result in what are at the moment quite fashionable forms.

Interestingly for the Western observer, however, the issue of energy does not appear to have informed the design of the projects except in the most general way, like the use of the brises-soleil. As in most conventional buildings in Chile, windows are single-glazed and walls are uninsulated. This is partly explained by the benign climate of this part of the world, but for a few months of the year high amounts of energy must be expended, or considerable discomfort endured. As Fernando Pérez and Rodrigo Pérez de Arce suggest, the importance of the Valparaíso School rests as much with its teaching principles as in the built artefacts. From the start, Alberto Cruz and his colleagues taught their students to study and record the particularities of an urban or rural site and to relate their concept to the largest (indeed continental) dimensions as well as to the minutiae. They also encouraged them to respect their own poetic intuitions, assisted by a kind of communal ritual (a collective ‘act’ at the start of the project), to design collectively by passing their ideas around, and always to integrate a concern for the ordinary and mundane with the mythological. The fact that the teachers at Valparaíso lived by their principles as well as teaching them associates their project with utopian communities from Owen onwards. Faint echoes of these principles are to be detected wherever teachers in schools of architecture try to engage young students, who often subscribe to an unreflective positivism, in an activity which has the capability of touching on the most profound human or indeed metaphysical issues.

As for Ritoque itself, there is currently a proposal to create a research institution there, which would be the first official university building on the site. The area that had been purchased at minimal cost and put into a trust by an idealistic group of teachers is now beginning to be part of a linear development along the fringes of the Pacific. New residential towers on the outskirts of Viña del Mar are all too visible. The new building, as all the others, is to be designed by the staff and will aim to be as innovative and experimental as the rest, but this must be a challenging task. New buildings will bring infrastructure issues: at present the constructions are disposed quite freely over a large area divided by the coast road, either on the dunes by the ocean or on the hills backed by the mountain range. Something like a masterplan will be required, not least to deal with questions of access by car and the channelling of water from the enlarged areas of hard surface that will receive the infrequent but sometimes extremely heavy rainfall. Alberto Cruz is now 86, and it must be as uncertain whether the teaching methodology of the original creators can be maintained as it is that the unique Ciudad Abierta will survive. This carefully documented book from ‘the end of the world’, with its inspiring photographs, provocative texts and comprehensive catalogue of the works and designs of the Valparaíso School could hardly be more timely.
Venice’s Mediterranean Colonies: Architecture and Urbanism
By Maria Georgopoulou
390 pp, 136 mono illus
isbn 0-521-78235-X
Price £50 (hb)

Reviewed by Frank Arneil Walker

I read this book while on an extended vacation on the Adriatic island of Korčula. I confess to a Presbyterian compulsion, as guilt-ridden as it is self-righteous, to temper indulgence with discipline and it seemed appropriate to imbibe a little academic rigour with the grilled fish and wine, not least because, despite its tiny size, of all Venice’s colonial cities – exempting Ragusa (Dubrovnik) as a technically independent ‘republic’ – none is more compact and intensely urban nor more architecturally unimpaired than sea-girt Korčula. I was intrigued to learn more about the wider Mediterranean pattern of Venetian urban settlement and to discover how characteristic or aberrant Korčula might be. In this selfish expectation I was, alas, disappointed.

I had been deceived by the book’s title. Far from being an overview of the urban development and architecture of ‘Venice’s Mediterranean Colonies’, the text focuses all but exclusively on Crete and in particular on Candia (modern Herakleion) which the author considers ‘the most sophisticated example of Venetian rule’ and, by extension, a model for the understanding of how colonial ideology manifested itself in urban layout. To be fair to Dr Georgopoulou, she makes it clear at the outset that the book is an elaboration of her 1992 doctoral dissertation, ‘The Meaning of the Architecture and Urban Layout of Venetian Candia: Cultural Conflict and Interaction in the Late Middle Ages’ – the cultural conflict implied being, of course, that between Venice and Byzantium. Such a title, though explicit (indeed perhaps because it is so explicit) scarcely rings with commercial resonance. In any event, for publisher and author, the temptation to broaden this first study into something ostensibly of much wider appeal and significance has proved irresistible. Despite, on the one hand, an early expression of academic regret that most study of the relationship between Venetian and Byzantine cultures, by concentrating on Venice herself and Constantinople, ‘neglects the rest of the Venetian and Byzantine commonwealth’, and, on the other hand, by virtue of a few scattered, hardly adequate references, eg to Ragusa (Dubrovnik), a passing recognition that the cultural hegemony of La Serenissima embraced some communities substantially Latin/Slavic in nature as well as those of Orthodox/Greek orientation, the author gives all her attention to the impact of colonial rule on the latter. Tangential exemplifications of her central arguments are drawn from Canea (Chania) and Retimo (Rethymnon) on Crete, Modon (Methoni) and Coron (Koroni) in the Peloponnnesos and Negroponte (Euboea), all of which, like Candia, shared an essentially Greek, ie Byzantine, inheritance. Nothing, or almost nothing, is said about the non-Greek, part-Slav, Adriatic colonies at, say, Split, Hvar, Korčula, Dubrovnik or Kotor. But set this complaint aside. Working within her declared context, Dr Georgopoulou makes the claim that Venetian rule on Crete, established in the early thirteenth century and secured

Adopted by the colonizers: an icon of the Virgin Mesopanditissa, ultimately moved from Crete to the church of Santa Maria della Salute, Venice
through the plantation of ‘a landed aristocracy of colonizers’, took a more sophisticated course than might be expected of a foreign power bent on consolidating its imperium. Walls and fortifications were raised or reinforced; land and sea gates bearing the unequivocal stamp of Venetian authority, the Lion of St Mark, were constructed at each end of the city’s main north-south artery, the ruga magistra; loggia, public fountain and market were built; new Catholic churches, Gothic basilicas distinct in plan and detail from the existing Orthodox places of worship, began to appear on prominent main-street sites; on opposite sides of the walled city, establishing a putative east-west cross-axis with the ruga magistra, the monasteries of the Franciscan and Dominican orders ‘framed the old town of Candia with their silhouettes’. Thus, altogether unsurprisingly, the new rulers contrived to ‘manipulate city space’, conscripting architectural and urban form as the mediators of administrative, religious and social power. In this undertaking the emulation of metropolitan precedent was frequent – the author maintains, for example, that the organization of Candia’s Piazza San Marco ‘replicated Venice’s main square’, though the evidence for this, at least in spatial terms, seems slight. What gave the imperial programme its subtler assumption and assimilation of Crete’s Byzantine past.

At a practical level the Venetians were judicious enough not to destroy many of the buildings they found in Byzantine Candia. Several were adapted to the needs of the new regime. The very centre of power, the palace of the duca (of which only problematical vestiges now remain), appears to have been an adaptation of a pre-existing structure, in all probability the former residence of the governor of Byzantine Chandax. In a parallel move, Candia’s Orthodox Cathedral was offered to the Latin archbishop, a consequence of which was that the larger Greek Orthodox churches were thereafter found outside the walls where the suburbs increasingly became ‘a primarily Greek space’. Outside and inside the walls, many colonizers commandeered the houses of the island’s Byzantine aristocracy, houses which, says the author, would have been ‘trendy (sic) by thirteenth century Venetian standards’. No doubt such actions often had a simple economic explanation but it is Dr Georgopoulou’s contention that this does not do full justice to the ingenious character of Venice’s colonial strategy. By retaining many of the outward physical symbols of Byzantine power, Venice presented herself as the legitimate inheritor of imperial status. But it was her appropriation of less tangible but more potent symbols which deepened this legitimacy. The Venetians recognized the importance of the island’s patron saint, Titus, revering him alongside their own St Mark. So strong did this affiliation become that when, in 1669, after four-and-a-half centuries of rule, they were expelled from Crete by the Ottoman Turks, they would take the relics of St Titus back with them to Venice. So, too, one of the most venerated icons in Crete, said to have been painted by St Luke, the Madonna of St Titus, also known as the Virgin Mesopanditissa because of its miraculous conciliatory role in bringing peace between Latins and Greeks following a local rebellion in 1264, was adopted by the colonizers. Every week it was carried in procession to the city’s Latin and Greek churches in honour of the Virgin and ‘in praise of the Venetian dominion’. It, too, was ultimately brought to Venice to be placed at the high altar of the church of Santa Maria della Salute. That Titus himself travelled ‘unto Dalmatia’, as Paul writes in his second letter to Timothy, might have alerted Dr Georgopoulou to the value of a closer study of Venice’s eastern Adriatic territories. This reflected influence of late medieval Crete on Venice itself – the veneration of icons and in particular those ritually related to the cult of the Virgin – represents for the author ‘the flip side (sic) of the strategies of appropriation that the Venetians used on Cretan soil’. While Cretan icon painters enjoyed big business, flooding the eastern Mediterranean ports with their work, art at the very centre of the empire was profoundly affected. As for any architectural borrowings, there is nothing comparable to the direct influence which the cathedral at Sebenigo (Sibenik) had on Venice’s church of Santa Michele in Isola, a relationship elsewhere observed, as the author acknowledges, by Dr Deborah
Howard. In urban terms, however, it is argued here that the creation of the Jewish ghetto in Venice in 1516 followed what had already been done in the Levantine colonies, notably within the walls of Candia.

Dr Georgopoulou’s book is thoroughly and impressively researched from manuscript and published primary and secondary sources; in a work of almost 400 pages, 103 are devoted to notes and bibliography. Confronted by such a weight of scholarship which, it must be said, does not generally depress the text, it may seem strange to ask for more, but why do a number of substantial passages of Latin and Italian quotation appear in the body of the text without translation? My three years of schoolboy Latin do not begin to cope with what I fancy most readers will regard as an annoying and unnecessary intellectual pretension. It is odd, strangely endearing even, to find lower down the page on which the first of these (for me) impenetrable Latin passages occurs this sentence: ‘A comparison . . . reveals tons (my italics) about the sophistication in Venice’s colonial approach’.

The architectural and urban evidence of the Venetian presence in Candia is generously illustrated throughout. Excellent maps and engravings convey something of the historical growth of the city, while a series of clearly drawn diagrammatic town plans locates the principal buildings and helps clarify the development of the urban structure. It would have been interesting to find these plans related to the city’s contemporary form, though one suspects spatial continuities would be hard to detect. It is a much greater disappointment to find building plans and sections badly delineated: in many the standard of draughtsmanship is puerile, scales are missing or illegible, north points are absent, and one wonders how much material was ever accepted in such a scholarly volume. Photographs are plentiful and good though they serve to show that the surviving archaeological evidence of Venetian architecture in urban Candia is disappointingly limited in quality and quantity.

And here I am back to my Adriatic expectation. In her first chapter Dr Georgopoulou notes the ‘disparity’ in the physical evidence between the little to be found in Candia and the more impressive structures surviving, for example, in those Adriatic ports which she dismissively refers to as ‘the more out of the way tourist orientated Venetian colonies along the coast of Dalmatia’. I admit to being biased – my familiarity with the Dalmatian coast stretches over forty or so years while I have visited Crete on only one occasion – but a book which purports to interpret the architecture and urbanism of ‘Venice’s Mediterranean Colonies’ ought surely to devote some serious attention to those outposts of the empire where the physical evidence is richest. That there the ‘cultural conflict and interaction’ was that between Latin and Slav rather than Latin and Greek might have provided evidence to explain this very ‘disparity’.

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