

Granny's Home Was Not Exactly Like Daddy's Home

Studying change and continuity in houses of Caico, Sertao Region of Brazil

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The problem

This research is intended to investigate whether changes identified in the built shells of vernacular houses of Caico, in the Sertao Region of Rio Grande do Norte, Brazil, were sided by changes in their spatial structure.

The architectural scenery of Caico, the oldest town in the Serido micro-region of Rio Grande do Norte's Sertao, has been the object of a thorough inventory (Trigueiro, 1996), given the heritage value of its building stock and the fact that this asset has been undergoing a dismantling process following economic changes in the region. The inventory recorded over 800 cases, dating from the nineteenth century through the mid-60's, and is currently generating a study based on the analysis of the building's enveloping boxes. The surviving architectural stock has been grouped into four different categories according to predominating exterior characteristics as follows:

Keywords:
 domestic space,
 vernacular, spatial
 structure, space use

59.1

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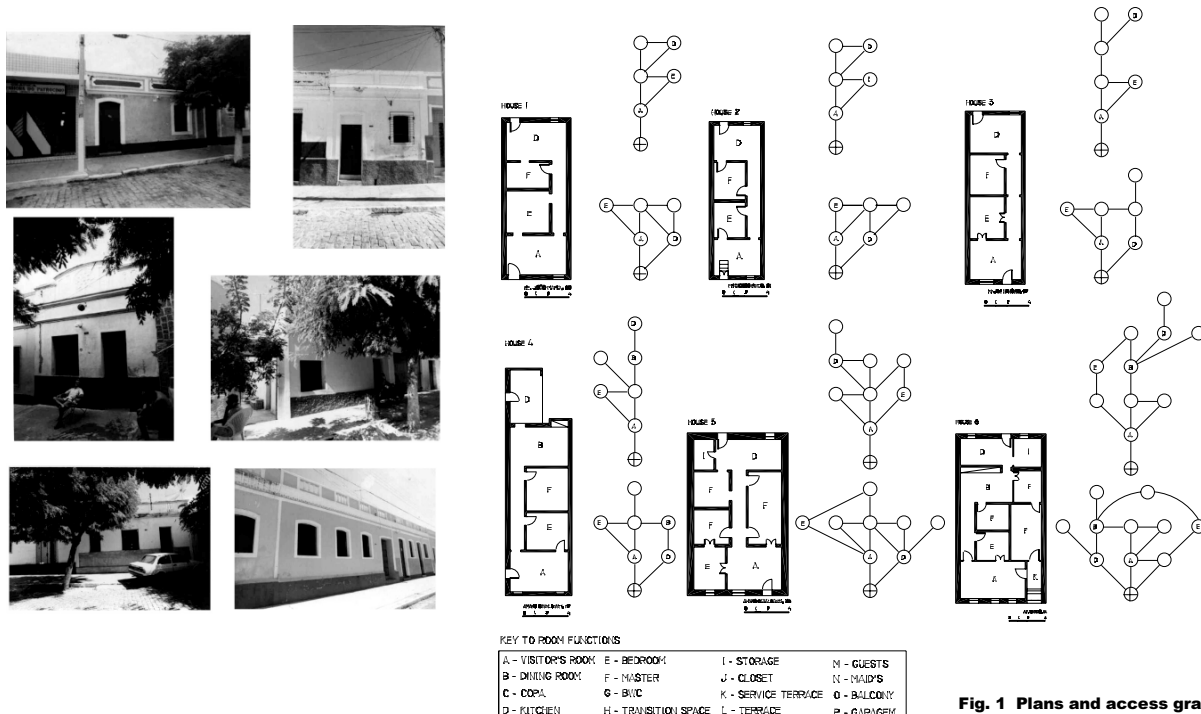
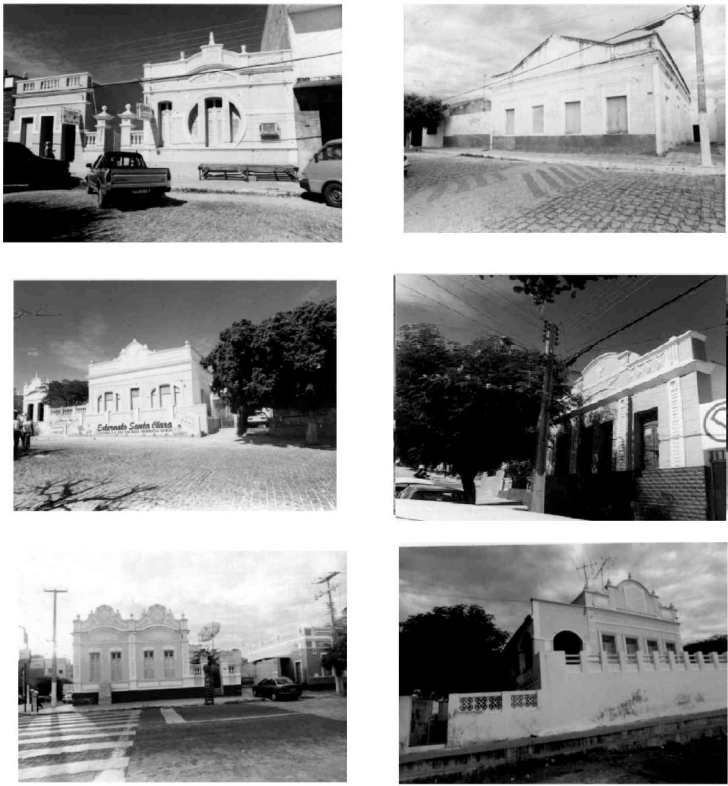


Fig. 1 Plans and access graphs of colonial houses.

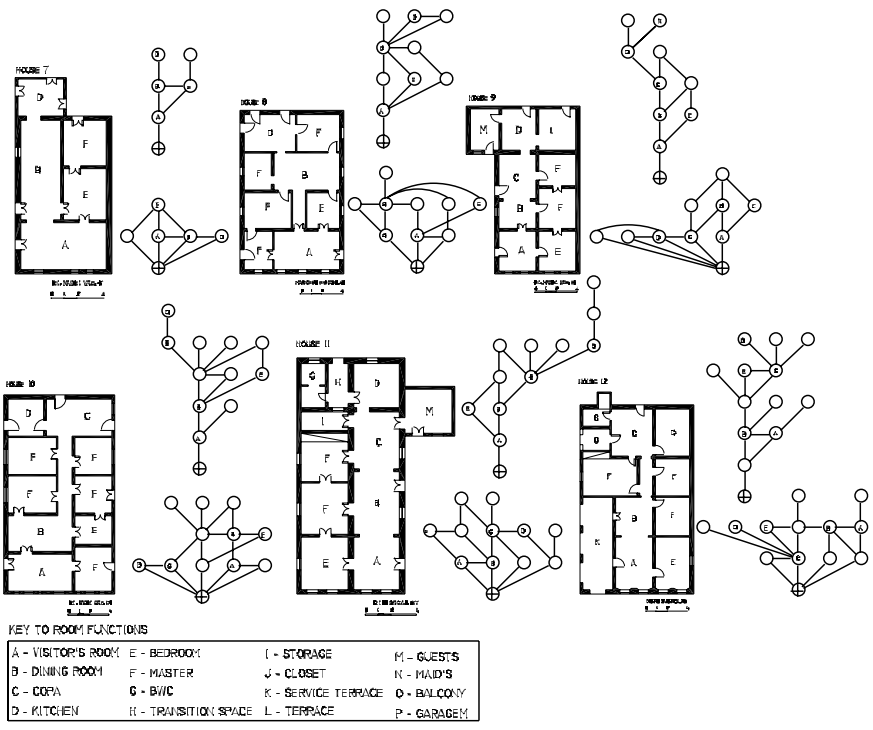
Fig. 1a Photos of colonial houses



(1) Colonial houses (from the nineteenth century - through the mid 20's) present single boxes with steep side gables, built on the front (and often sides) plot limits, with rectangular or arched windows and doors distributed at regular intervals along the front façade.

(2) Eclectic houses (mid 20's through mid 40's) display multi-volumed detached shells with varying roof structures (side, front gables or enveloped roofs) and fenestration shapes, surfaces decorated with elements borrowed from diverse revivalist stylistic tendencies, from French neo-classicism to Brazilian neo-colonial.

Fig. 2 Plans and access graphs of eclectic houses
Fig. 2a Photos of eclectic houses



(3) Proto-Modernist houses (mid 30's through mid 60's) constitute a transition trend in which any aspects of the eclectic category may be displayed in a simplified and moderate manner, alongside early modernist features. Traditional building techniques, (i.e. load bearing brick walls) dialogue with innovative ones (free standing concrete structured balconies), often disguised by somewhat sober decorative elements.

(4) Modernist houses (mid-40's through mid-70's) display features more or less faithful to the formal repertoire of the international style. Box-like concrete structures predominate, together with mock flat roofs, horizontal window frames, free-standing terrace slabs. Some recurrent elements betray the influence of Brazilian modernism, especially that of Pampulha and Brasília (i.e. diagonal and free-shape lines; hollow bricks and brise-soleil; coloured tile panels).

Six houses were selected from each of the above categories, according to the number and variety of the features present in one same building, so that cases that conform more tightly to each successive tendency could be checked for hypothetical analogous variations in spatial structures. The Spatial Syntactic Analysis procedures utilised to achieve that goal were access graphs and their corresponding numerical integration values.

Access graphs were worked for two different situations: one representing the dwellers' view of the spatial complex and another representing the visitors' view. This choice was due to the fact that in the



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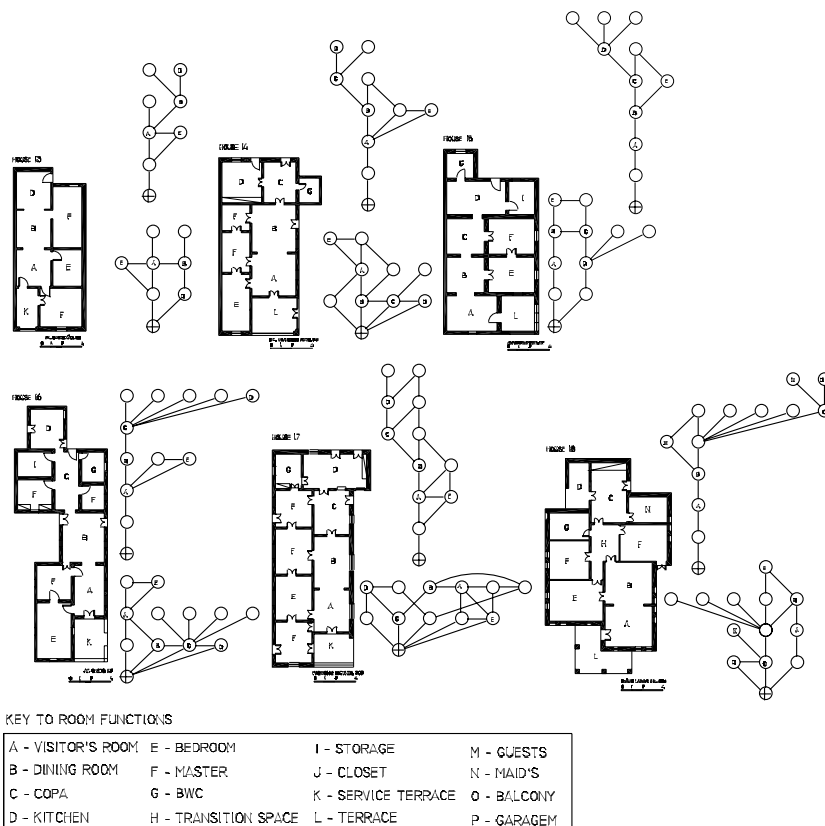


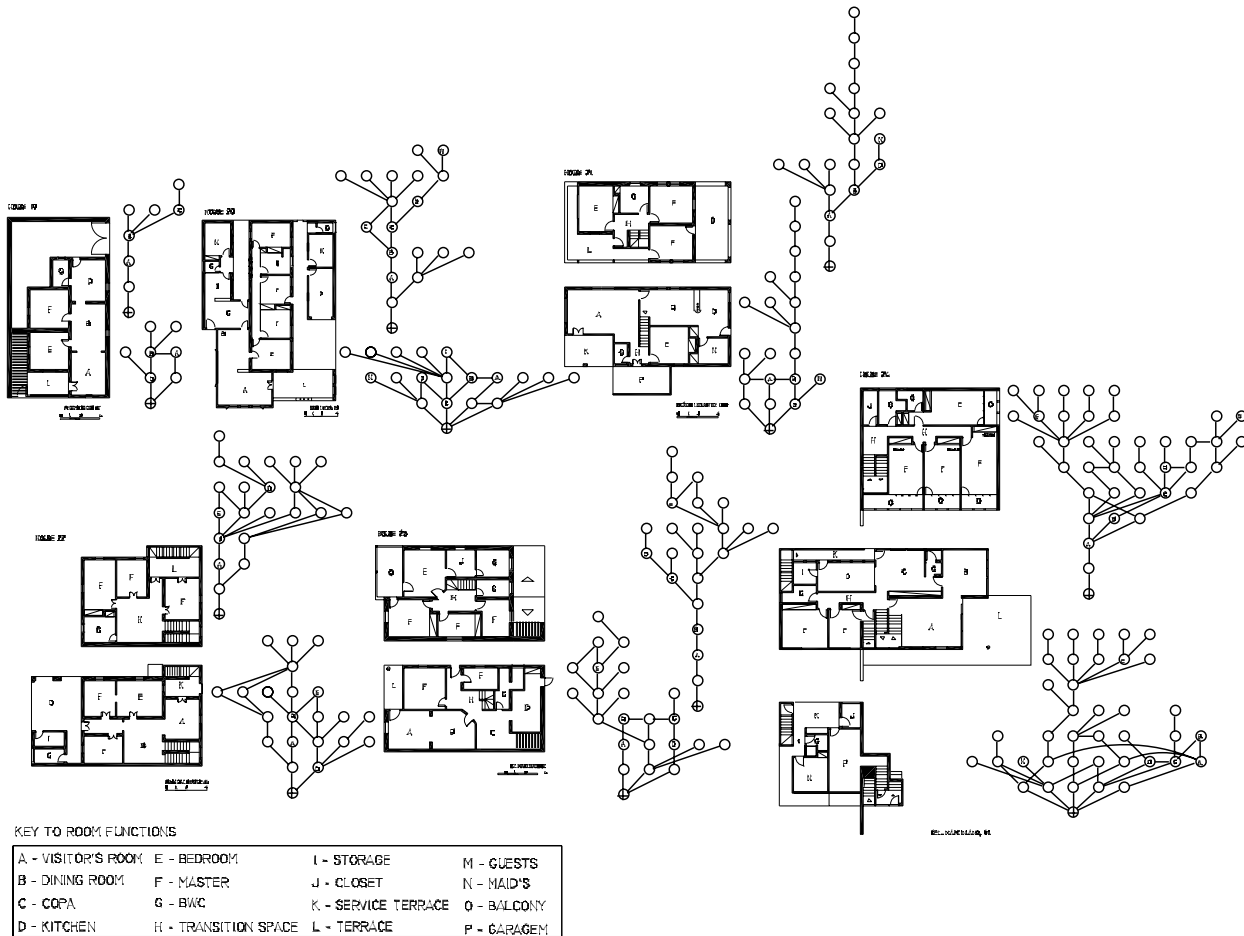
Fig. 3 Plans and access graphs of proto-modern houses
Fig. 3a Photos of proto-modern houses

studied society, whereas visitors tend to be welcomed only through the 'front door' access, inhabitants may, and usually do, use a series of alternative entrances into the home. Each complex was therefore, rooted from the exterior by any possible entrance and, again rooted from the street by means of the front door and intervening spaces. It should be perhaps noted that this deeply imprinted practice translates into the availability of a room designed as the visitors' room, which is almost always a compulsory first step into the house.



Fig. 4 Plans and access graphs of modernist houses

Fig. 4a Photos of modernist houses



Synoptic table of recurrent spatial aspects

house type	Colonial	Eclectic	Proto-mo	Modernist
no internal ring	0,0%	0,0%	0,0%	33,3%
one or more internal ring	100%	100%	100%	66,6%
one single internal ring	83,3%	0,0%	33,3%	33,3%
two external rings	16,7%	16,6%	16,7%	33,3%
at least three external rings	0,0%	83,3%	50,0%	33,3%
Visitors' room at depth 1	100,0%	83,3%	0,0%	0,0%
Visitors' room at depth 2	0,0%	16,7%	100,0%	100,0%
Visitors' as necessary through passage	100,0%	83,3%	83,3%	83,3%
Visitors' room lying on a ring	100,0%	83,3%	66,7%	33,3%
Kitchen at maximum/next to max.depth	100,0%	83,3%	100,0%	16,7%
one or more bedroom on a ring	100,0%	100,0%	100,0%	66,6%
no transition spaces	0,0%	33,3%	83,3%	16,7%
one single transition space	83,3%	66,6%	0,0%	0,0%
two transition spaces	16,7%	0,0	16,7%	0,0%
three or more transition spaces	0,0%	0,0%	0,0%	83,3%

About space configuration

Some revealing patterns emerged from the analysis of the access graphs. Over 50% of colonial and 80% of eclectic houses had at least one interior ring, a feature recurrently associated with ease of circulation within the home. This aspect was reduced to a little over 30% in modernist houses. It seems striking to ascertain that most eclectic houses had three inner rings.

The occurrence of multiple exterior rings is related with the integration of the outer space. Houses having a single exterior ring present the traditional split between a social and a service access. Over 80% of colonial houses presented only one exterior ring. On the other hand, over 80% of eclectic houses had three or more exterior rings.

As expected, in 100% of colonial houses, and over 80% of eclectic houses, the visitors' room lies at depth one from the exterior and is a through space into all other interior cells. In the 20% remaining eclectic cases the terrace - a common consolidated feature in Brazilian houses since then - links inner and outer spaces. Another property of the visitors' room is its flexibility not only in relation to the exterior and interior complexes but also concerning the master bedroom with which it articulates in a ring in most colonial and eclectic houses.

All the colonial and eclectic studied house plans had at least one bedroom - the master bedroom whenever possible to ascertain - in a ring. This property decreases dramatically in later cases where rings - if at all available - tend to link living rooms and terraces, not bedrooms. In modernist plans ringy bedrooms usually link not to living spaces but to an ensuit shower/toilet and/or dressing room. These facilities are scarce in colonial and eclectic houses that present less than 35% of cases with an interior shower/toilet room, against 80% of proto-modernist and 100% of modernist cases. Shower/toilet rooms increase in surprising number within modernist cases 50% of which displaying two instances, 17%, three and another 17%, five units of this equipment.

Transition spaces are rare in general but tend to become more frequent. No pre-modernist plan had more than two transition spaces whereas over 80% of modernist plans did.

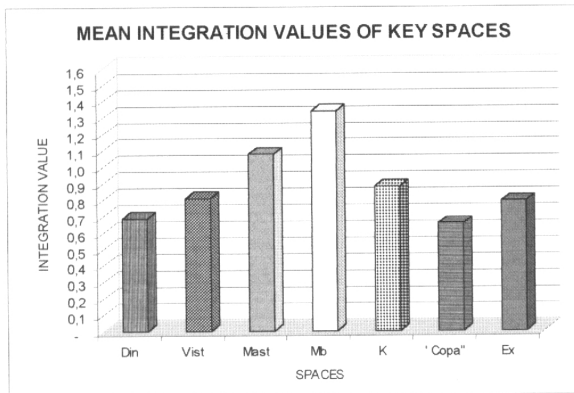
An overview on how each key space relates to one another and to the complex in the studied categories resulted in a comparative observation of the integration values of visitors' rooms, dining room (for formal meals), copa (for daily meals), kitchen, master bedroom, maid's bedroom and exterior.

Table 1

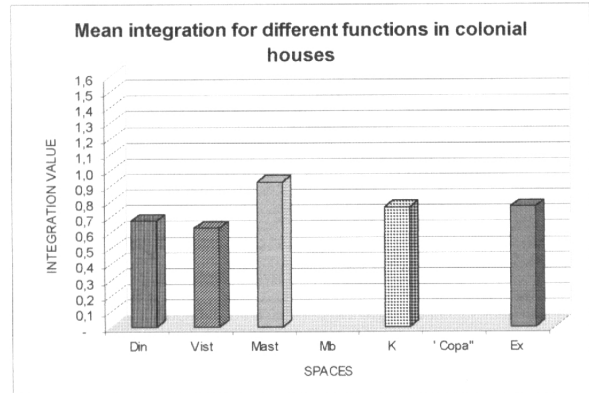
case	break	no. spa	mean	min	max	Din	Vist	Mast	Mb	K	Copa	Ex
1	Pe Jôy Maria 60	6	0,67	0,29	0,86		0,58	0,57		0,58		0,58
2	Francisco Pinto 181	6	0,67	0,29	0,86		0,58	0,57		0,58		0,58
3	Major Honorio 92	7	0,95	0,59	1,57		0,79	1,18		0,98		0,98
4	Amaro cavalcanti 72	7	0,90	0,39	1,35	0,79	0,59	0,98		1,18		0,98
5	AmaRO Cavalcanti 103	9	0,80	0,34	1,35		0,56	1,17		0,56		0,79
6	Seridr 111	11	0,88	0,53	1,36	0,57	0,68	1,06		0,68		0,68
7	Cel Manoel Vale 87	6	0,57	0,29	0,86	0,29	0,57	0,57		0,86		0,29
8	Marinhei Fernandes	10	0,66	0,27	0,27	0,72	0,64	1,18		0,64		0,45
9	Cel Manoel Vale 113	10	0,82	0,46	1,09	0,73	1,09	1,09		0,64		0,45
10	Cel Manuel Vale 179	12	0,73	0,38	1,02	0,51	0,64	1,02		0,89	0,57	0,57
11	Celso Dantas 377	12	0,85	0,51	1,40	0,51	0,77	1,15		0,83	0,51	0,57
12	Morro da Graça	13	0,85	0,50	1,54	0,61	0,94	0,83		1,10	0,49	0,55
13	Pe Sebastião 106	8	0,94	0,44	1,45	0,58	0,44	1,02		1,02		1,02
14	Francisco Pinto 241	10	0,97	0,45	1,36	0,45	0,64	1,18		1,18	0,64	0,64
15	Amaro Cavalcanti 72	11	1,10	0,68	1,56	0,83	1,13	1,36		0,68	0,68	1,21
16	Seridr 149	12	0,89	0,38	1,34	0,51	0,77	1,34		0,89	0,38	0,57
17	Professor Coutinho 209	12	0,70	0,38	1,02	0,64	0,77	0,64		0,70	0,51	0,38
18	Otávio Lamartine 1065	13	0,91	0,39	1,16	0,66	0,99	0,99	1,16	0,99	0,55	0,88
19	Renato Dantas	8	1,02	0,44	1,45	0,44	0,87	1,31		0,58		1,02
20	Manuel Felipe	19	1,02	0,54	1,33	0,88	0,96	1,08	1,33	0,85	0,54	0,54
21	Otávio Lamartine	20	1,59	0,99	0,99	0,98	1,17	1,51	1,74	1,28		1,46
22	Pq da Liberdade 44	22	1,12	0,64	1,77	0,64	0,91	1,04		0,91		1,09
23	Cel Martiniano	23	1,71	1,10	2,59	1,28	1,47	1,76		1,43	1,24	1,80
24	Cel Martiniano 911	39	1,21	0,70	1,66	1,10	0,89	1,30	1,49	1,07	0,84	0,91

Table 2

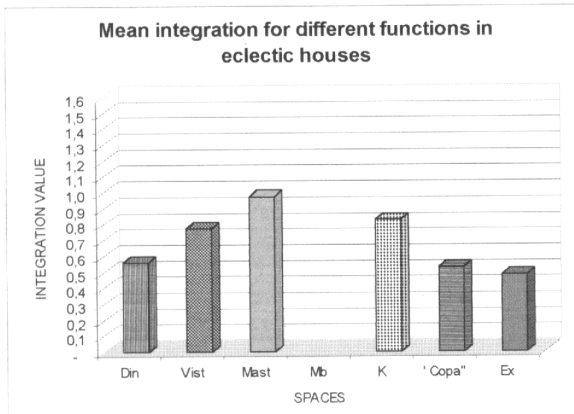
CAVALCANTI – FIG AA



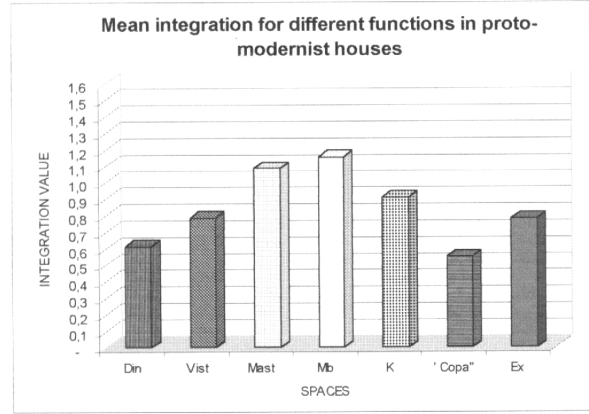
CAVALCANTI – FIG BA



CAVALCANTI – FIG BB



CAVALCANTI – FIG BC



In all cases dining rooms tend to be the most integrated spaces; when a copa - prerogative of eclectic houses - is available this becomes the most integrated space. Kitchens are very segregated in most pre-modernist houses but tend to become less so in proto-modernist and modernist cases.

Exteriors are integrating spaces for all categories but especially for eclectic houses.

Bedrooms are segregated spaces as a whole in all types but with master bedrooms in colonial and eclectic houses tending to be more integrating than those in modernist houses. Maid's bedrooms, when available, are very segregated in all cases.

About space and society

The brief outline of developing configurational aspects described above confirms findings from other studies of Brazilian housing (Marques e Trigueiro, 2000) that report structural changes in domestic space structure, which seems to parallel the adoption of new formal features in built shells. Although spatial and material transformations may occur in a rather loose correspondence, with conventional layouts often disguised behind a stylistically updated façade, the progressive recurrence of certain aspects, when samples are examined in a diachronic perspective, points towards changing ways of life. What is more, trends appear to unfold in the same direction in larger urban centres and hinterland settlements alike, despite variations in pace and intensity.

Some of these aspects seem so conspicuously associated with the ways society and space structuring are related that a few comments may perhaps be attempted though risking to go perhaps beyond the intended scope of this essay whose aim was to account for change and continuity patterns in domestic space and not to explain them.

The strategic position of master bedrooms and its links with the social sphere - a reported male realm - in colonial homes appears to confirm the repeatedly acknowledged patriarchal control over the house and over the main entrance, at a time when the street was supposed to be the ill-famed domain of urchins, prostitutes and slaves.

On the other hand, the abundance of exterior rings in eclectic houses appears to associate with a slackening of control for incoming and outgoing people. The street had, as it goes, become a welcome place, thus signalling the first strong urbanisation drive in towns that welcomed innovations such as public electrical lighting, street paving and public gardens.

An increasing integration of the kitchen, as found for cosmopolitan towns, betrays a compromise between traditional hinterland practices and the ideals of practicality that accompanied modern domestic design.

The same may be said about master bedrooms that no longer operate as surveillance points as was the case in colonial and eclectic times, but develop, in modernist homes to a configuration position that suggest some desire to ignore what goes on in the household. Maid's bedrooms, however, do not change.

References

- Marques, S. & Trigueiro, E. (2000). 'A la recherche de la maison moderniste perdue'. Presented at DOCOMOMO International, Brasilia.
 Trigueiro, E. (1996) "Inventário de uma herança ameaçada". Registro e estudo dos centros históricos do Seridó, Research Project, UFRN, Natal.

CAVALCANTI – FIG BD

