

THE FUTURE OF HOUSES: WHAT REAL-ESTATE ADS TELL ABOUT THE EVOLUTION OF SINGLE-FAMILY DWELLINGS

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Abstract

This research questions the evolution of people's preferences by analyzing 6750 real-estate ads published at three different decades (1985, 1995 and 2005) and in three distinct geographic areas of France (North, West and South). Our purpose is to establish the importance, at each time frame and location, of the different elements that compose the house in order to elaborate on the evolution and future of the house. The results show that the evolution of this type of dwelling is twofold: changes in the use of space and changes in the notion of comfort.

Keywords:

Domestic architecture; house; evolution; real-estate ads.

Introduction

The house is a complex architectural entity. It is at the same time a functional object that must respond to the needs of a family, it is a consumer product considered as an investment and an object of personal and social expression with strong symbolic meaning. Cultural values, technological innovations, political decisions and economic forces influence its development. In France, more than half of the households live in a single-family house. This type of residence represents the ideal for a vast majority of the population. But the isolated single-family house considered as "ideal home" questions the future of dwelling and its impact on sustainable development and urban sprawl. Changes in uses, comfort needs, relationship with its urban environment and building techniques prompt the evolution of the house.

The elements that are praised in this kind of dwelling are in slow but constant mutation. In the last century we have seen how changes in social and family structure as well as technological improvements have affected the way we conceive, build and use our houses. Each new



dwelling project takes the evolution one step beyond. The questions of how and where we will live are almost always asked to experts that are concerned with the production of houses and rarely to the users. These are considered as not having a broad view of the problem.

The research in the evolution of dwellings has analyzed each of these scientific subjects. For example, recent studies (SOFRES, 1994, Eleb at al, 1988, Bellanger, 2000) show that "basic comfort" (bathroom, toilet and central heating) is taken for granted and that the conception of comfort has evolved in order to include other notions as privacy, day-lighting and noise. Meanwhile, the CSTB (CSTB, 1998) is interested in how the evolution of building materials and techniques can effect the construction of houses. However, it is interesting to see that most the building systems that were hailed as revolutionary have not made their marks while other, more low key as for example drywall, are now widely used. Guy Tapie bases his analysis on the conditions of consumption and production of the single-family house and concludes with an outline of the trends that have guided its evolution (Tapie, 2005). Our research takes the problem of the future of houses and questions the evolution of people's preferences. We propose to study the rarely exploited semantic contents of real-estate ads as a source of information of the characteristics and qualities of the single detached house.

Real-Estate Ads

Single-family houses can be studied in several ways, as a built object but as well as the way it is perceived. People's description of their dwelling is an important source of information.

Nevertheless, to recover the discourse about their home is not an easy task. Since our research is interested in the evolution of the description of houses we are presented with several problems in order to find comparable sources of discourse that represent different time periods.

Real-estate ads constitute a particularly interesting type of discourse that is not biased by the intervention of the researcher and that is considered to be a source of "typical behavior" (Metzeltin, 1983). It allows establishing the details and characteristics of a consumer population based on information produced by a seller. Real-estate ads are a compact description of the characteristics and qualities that dwellers and real-estate agents give to a house in order to make the best sale. Its limited size suggests that only the most important elements are exposed since the pricing filter pushes sellers to weight their words and use a particular vocabulary. Thus, the ads constitute a kind of idealized description of the house. The elements mentioned and the qualities attributed to them are defined by the seller in function of the image he has of the potential buyer. In other words, the elements that form the description of a house in a real-estate ad can be considered as the expression of the representation of what the seller thinks is in demand and, by consequence, as an idealized image of the house.

Real-estate ads are also a mirror of a moment in time. The historical study of the ads can allow us to summarize the contextual characteristics of the moment of their publication (Kimberly, 2001). The description of a house can be analyzed "a posteriori" with no tampering with the fidelity of the period. The texts of the real estate ads

constitutes a source of "historic" information about the dwelling that presents the state of the stock, its characteristics and qualities at a moment in time. Therefore the diachronic study of the ads can be used to outline the evolution of the dwellings.

This research is based on a previous experience where we analyzed real-estate ads in order to identify the sensitive parameters of the single-family house (Rodriguez, 2004). The purpose of our research is to analyze the single-family house in France during the last three decades in order to outline the evolution of the representations of dwelling modes. We propose to establish the importance, at each time frame and location, of the different elements that compose the house in order to elaborate on the evolution and future of the house. This research was funded by the Plan Urbanisme Construction Architecture (PUCA) of the Ministère des Transports, de l'Équipement, du Tourisme et de la Mer.

Methodology

Our study analyses real-estate ads published at three different decades (1985, 1995 and 2005) and in three distinct geographic areas of France (North, West and South). A sample of 6750 ads (750 ads per decade and location) is studied using statistical and linguistic analysis.

In order to guarantee a representative sample we collected real-estate ads published in major newspapers of three different regions of France: "Ouest-France" for the west and specifically the city of Nantes, "La Voix du Nord" for the north and the city of Lille and "La Dépêche du Midi" for the south and the city of Toulouse. The ads were collected in newspapers published

at three different decades: 1985, 1995 and 2005. This period of time, spanning twenty years, encompasses a profound evolution in the collective representations of the single-family house while representing a homogenous sample.

The size of the samples was calculated in order to optimize transcription of the ads and their analysis. We proceeded by studying the lexical characteristics of a sample of 1870 ads and systematically compared them to smaller samples of random ads (from 50 to 1000 ads). The results show that a sample of 750 ads is representative (100% of significant terms and 65% of total terms) for each time period and each newspaper, resulting in a final sample of 6750 real-estate ads. The ads abound in information, but only the description of the real-estate is analyzed. The information about price, geographical location and coordinates of the seller are kept for future use.

The lexical analysis can give us an image of the representations associated with an ideal house at a moment in time. The analysis of the evolution of these events also gives an image of the evolution of the representations. The sample was analyzed using lexicographic tools developed in our laboratory since a survey of existing tools showed that they were ill suited to analyze non-literary text. The structure of the real-estate ads is complex and does not respond to traditional syntax. The abundance of acronyms also complicates the task. Our purpose is to shed a light on the lexis used, the frequency of terms, the associations (qualities assigned to the objects) and the structure of the ad (descriptive modes, order).

The analysis is done based on the notion that the description of the house in the real-estate ads can be decomposed into two sorts of elements: the objects that compose the properties and the qualities associated to these objects. For example, the text of the ad "beautiful house with 3 rooms, luminous living-room with private garden" can be characterized as: the objects "house", "room", "living-room" and "garden" to whom correspond the qualities "beautiful", "3", "luminous" and "private".

Objects	Qualities
House	Beautiful
Rooms	3
Living Room	Luminous
Garden	Private

We propose several types of analysis: First we study the lexis in order to sort the terms used and their occurrence, second we analyze the emergence and disappearance of terms as well as the highest rates of progression, third we analyze the qualities attributed to the main objects.

Variations Between 1985 and 2005

Figure 1 shows the strongest mean variation (above 5%) of the objects of the real estate ads between 1985 and 2005. It is interesting to see that "room", "total comfort" and "villa" are in decline. These objects represent forms of expression that lose their importance against new ways of describing the house. For example "villa", which is used mostly in the south of France

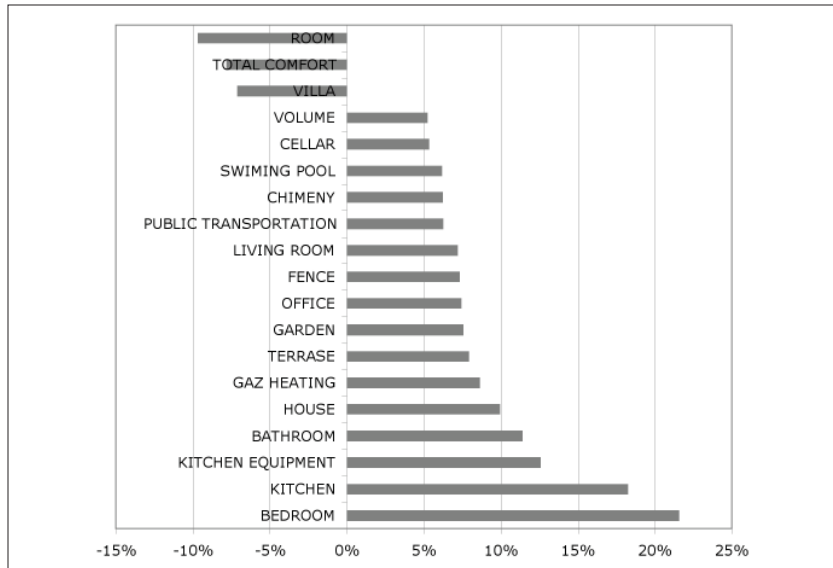


Figure 1: The Strongest (above 5%) Mean Variation between 1985 and 2005 of the Objects of the Real Estate Ads (Source: Authors).

in 1985, is replaced by the more widely used "house" in 2005. The denomination "room", as a generic way of referring to the different spaces, is abandoned in favor of more specific denominations of the rooms (living room, play room, etc.). "Total comfort" is a complex expression that we will detail in the last section.

"Bedroom", "kitchen" and "bathroom", which are among the objects with the largest positive mean variation between 1985 and 2005, gain in importance since the size of the house increased during this period. The houses in 2005 have more bedrooms and bathrooms than those of 1985. The importance of the equipment of the house is also suggested in the progression of the objects "kitchen equipment", "gas heating" and "chimney". The evolution of "terrace" and "garden" confirm the change in the use of the outside space of the house, while the emergence of "office" responds to the changes in work habits and the adoption of the home office.

Qualification of the Rooms

The main rooms are the bedroom, the living room, the kitchen and the bathroom. A number always qualifies the bedroom, with a mean of 3 or 4 bedrooms per house. The other qualities are insignificant. Our results show no significant increase in the number of rooms per house between 1985 and 2005. Instead, there is a 10% rise in number of 3 bedroom houses between 1995 and 2005.

The living room is generally qualified by its size (55,8%). It is represented in 43% of the cases by a quantifiable dimension (m²) and in 12,8% as a qualitative dimension (big, large, huge, etc...).

It is interesting to notice the emergence of the luminous and sun lighting qualities. They appear in 1995 and have a strong progression up to 3,9% in 2005. The references to the orientation of the living room are very weak in 1985 but progress to a stable state above 3% in 1995 and 2005.

The kitchen is mainly qualified (17,1%) as been "equipped" and by her size (14,5%) with many references to "big surface" (Figure 2). It is very important to notice that the notion of "open kitchen" appears in 1995 (4% of the ads) and keeps progressing in the year 2005 to attain 6%. This evolution is a direct influence of the North American model and is even called "american kitchen". One could infer that the steady progression of this type of kitchen disposition could evolve into a generalized model. But the apparition, in the year 2005, of the quality "closed kitchen" could mean that a more traditional disposition is also well appreciated by the users.

The bathroom is qualified mostly by its number (43,2%). Our results show that almost half the houses have two or more bathrooms but there is no indication of increase between 1985 and 2005. The rise in the number of room dedicated to personal hygiene is due to an increase in rooms with other denominations as is the case of "half bathroom" that is explained in the next section. It is important to remark that the extra bathroom is private and attached to the master bedroom.

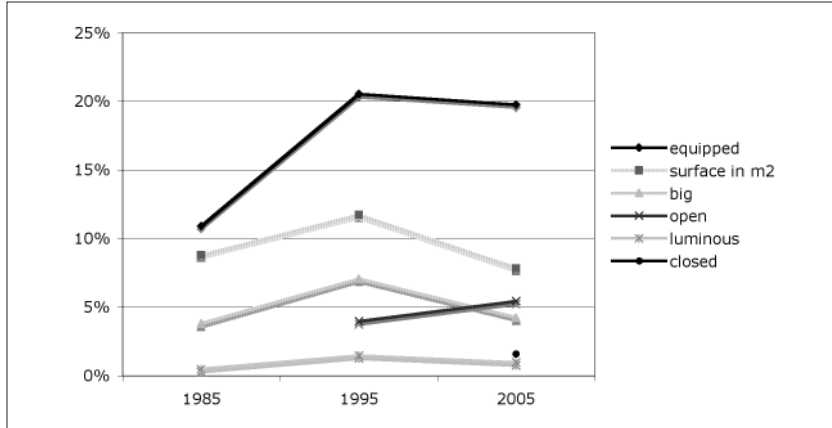


Figure 2: Evolution of the Qualities Attributed to the Kitchen (Source: Authors).

Positive Progression

We studied the objects that had the highest degree of progression. This meaning the objects that were present in 1985 in less than 0.5% of the ads and that progressed the most in 2005 (figure 3). We see the apparition of objects

that refer to the urban location of the house like "facing (open) towards", "blind ally", "sector" and "near conveniences", those that refer to new types of room like "great room", "parking" and "half bath", as well as those that refer to the architectural element of "volume" and the material "parquet".

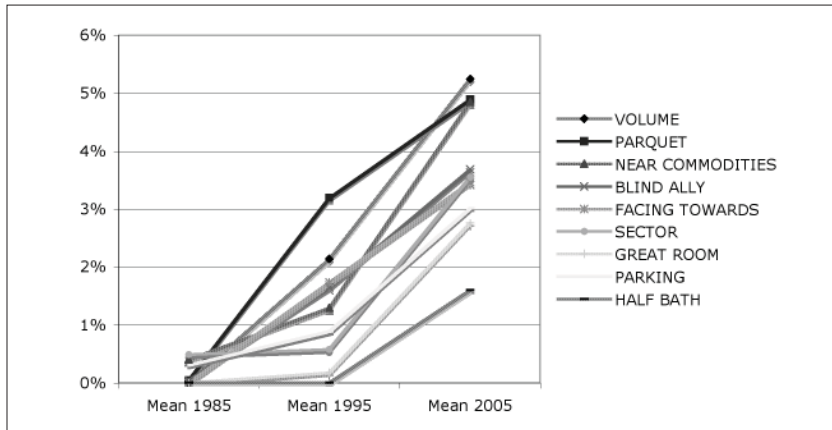


Figure 3: Strongest Progression of Objects Present in Less than 1% of the Ads in 1985. (Source: Authors).

The most important references to the urban location are "facing (open) towards", "blind ally", "sector" and "near conveniences". The consideration "facing towards" is always associated with the word "not" in order to exacerbate the notion that the property is secluded from the view of strangers. The location in a "blind ally" is mostly associated with "calm" in 40,1% of the cases ("blind ally, assured calm", "in the calmness of a blind ally"), and with "private" in 7,8%. The "sector" is also frequently (31,3%) associated with "calm". It is also "look after", "in demand" and "desired" in 21,7% of the cases and "private" in 7,8%. These notions present tranquil and peaceful house sheltered from the nuisances and inconvenience produced by the neighbors. The house is also "near conveniences". This category regroups all the urban services like education, commerce and transportation. It puts upfront that the house is conveniently located near key living facilities. On top of the traditional rooms, there are several spaces and functions that make their appearance like "great room", "parking"

and "half bath".

The emergence of "great room" is not the appearance of a new type of room but more of a change in the way people use and conceive the living room. First of all it is qualified mostly by its size and is bigger than the traditional living room. Second, it is seen as a much more relaxed space where the family does several activities that go from entertaining to watching television. The "parking" is an exterior space for the car that always complements the closed garage. Its appearance responds to the increase in the number of cars per household but also to the trend identified by Bellanger (2000) that the garage is put to other uses other than to park the car (workshop, storage, etc). The emergence of "half bath" (a shower and a sink) consolidates the fact that there are more bathrooms in the houses.

The architectural reference to the volume of the house is interesting because it is at the same time an indication of a certain architectural

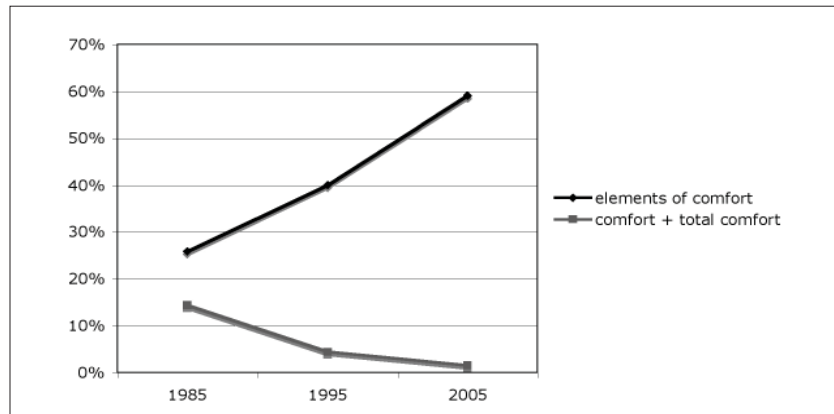


Figure 4: Evolution of the Elements of Comfort and of "Total Comfort" (Source: Authors).

culture and an evolution of the notion of more space. The French house has been steadily getting bigger, from 77 m² in 1978 to 105 m² in 2004. "Volume" is primarily qualified (72%) by is beauty ("beautiful volume") and in a lesser amount by a qualitative appreciation of size (11%) (big, huge, large). It is a reference to an architectural quality that is not based on a particular style as well as a way to describe a room that is larger than the mean house. "Parquet" is the only reference to a building material that presents an important increase. It is mainly associated with chimney in order to increase the standing of the social space.

The Evolution of "Comfort"

In the 50's the government established by law that all new dwelling must have "total comfort" that consisted in an indoor WC and bathroom as well as central heating. This notion appears in our research as in constant decline and is bound to disappear (Figure 4). It has been replaced by a much more complex notion of comfort based on equipments and installations that include heating and chimney, security systems, spa installations, sprinklers, air conditioning, etc...

Conclusions

The results of our study show that there have been changes in the house. The evolution of this type of dwelling is twofold: changes in the use of space and changes in the notion of comfort.

Our results show a rise in the number of bathrooms but not an increase in the number of bedrooms. This is the reflection of the suburban

house market that produces mainly 3 bedroom dwellings. The national statistical data that shows an increase in the size of the houses is not evident in our results.

The emergence of the grand room with an open kitchen and the light decline in the formal living room show a tendency towards a much more relaxed conception of the social space of the house. The traditional disposition of separate living room, dining room and kitchen is transformed into a big unified space that serves as a multiple use space for the family.

The notion of comfort evolves from "total comfort", designating central heating, a bathroom and a toilet, to a much more complex notion based on specific equipments and installations. The users take for granted the basic elements of comfort and search for other installations and equipments that are usually associated with the notion of luxury and indulgence.

Our results allow us to outline the ideal house: it is at the same time near everything but far from everybody, it has a big beautiful luminous and sunlit living-room, a big outfitted open kitchen, several bathrooms and 3 or 4 rooms, it is comfortable because it is technically well equipped and has big volumes and parquet floors.

The ideal home is somewhere between the country house, secluded from nuisances of urbanization by a natural environment, and a city dwelling that is near all the basic needs (education, commerce and transportation). These values resemble those attributed to the suburban house. Is this due to the wide

spread of the ideal of suburbia, the influence of commercial jargon in the real estate ads or that our sample could be composed of a majority of suburban houses? This question opens new venues for future research.

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