Perceptual Acuity of Non-Architects to Incremental Changes in a Building Design: At What Point is a Colonial House not a Colonial House?

Ross Thorne

In Britain, USA, Australia, and other countries that have either established colonial regimes, or been on the receiving end of colonialism, there seems to be an almost a perceptual desire by a proportion of home-owners to linger in the age of colonialism through the symbols on their mostly non-architect-designed houses. These houses often receive derisive comments by architects and other elite groups who see them as tatty pastiches. But might it be that the non-architect, non-historian public look simply for a colonial "feeling" -- an essence of colonial appearance. This study sought to find out whether non-architects knew what is a true Australian Colonial house, and how far removed the appearance can digress from legitimate Colonial so the design is judged by subjects as not colonial.

NOTE: The “future paper” by Purcell and Thorne (as mentioned in the text) did not eventuate due to Purcell taking up a position outside the Department of Architecture at the University of Sydney.

Key words: Housing; Visual perception; Architectural design.

Illustrations: By the author and Ruth Downes (for the incremental changes to the original Colonial House).

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PERCEPTUAL ACUITY OF NON-ARCHITECTS TO INCREMENTAL CHANGES IN A BUILDING DESIGN: At What Point is a Colonial House not a Colonial House.

Ross Thorne
Department of Architecture
University of Sydney

Introduction

The Rationale for the Experiment

Talk to many architects (particularly ones who teach design) and they will frequently denigrate the popular taste of architecture as depicted in builders' (project builders', merchant builders') house designs as selected by the great majority of house purchasers. In the principal Australian cities there are a large number of builders who possess catalogues of designs that, when built, multiply many times those available designs. (For example, A.V. Jennings have 50 designs across all price categories from which to choose and, according to their individual popularity, they are replicated across the country.) Like manufacturers of other products, they regularly add new designs, discontinue some or modify old ones according to the sales success of each design. It could therefore be said that those designs selected represent the taste of, and appearance desired, by the purchasers.

A number of designs, since the last half of the 1950s decade have been claimed to be “Colonial”. However, to the eye of an architect this claim relies entirely on the pot-pourri of visual/functional elements amongst which there are a few identifiable as appearing similar to some elements used in the dwellings of the early nineteenth century in Australia (some of which are also evident in late eighteenth century in USA and the UK). For example, they include verandahs (usually with concrete imitation Corinthian columns which were not used in colonial times), multi-paned windows and shutters, and multi-panelled front doors, perhaps with side-lights and fan-light above. In many designs, these are used in a seemingly random manner without the proportional distinction of the original examples.

Such houses are advertised as, and frequently termed “colonial”, but is this because many people who are not trained as architects cannot discriminate between a colonial (Georgian/Regency) house and these pastiche colonial houses? That is, is the visual acuity for shapes and composition of specific shapes not as developed with non-architects as it is assumed for architects? Or, is such acuity just as developed but the purity, authenticity, or accuracy are not important to non architects; and therefore they purchase such “colonial” houses because these homes possess a colonial, “atmospheric” visual quality - a “colonialness”?

Development of the Stimuli

To test this hypothesis an elevational photograph of an Australian colonial house, built c.1840, was taken. A series of visual stimuli were prepared mainly by changing each element on the elevation, one at a time. First, the chimneys on the roof were eliminated as elements that were less important than a number of others. Otherwise the elements changed were the verandah post spacing, the shape of the verandah lintels between the posts, and the roof profile shape (Stimuli Nos. 12, 4, 8, 7). The first series of changes produced four elevations, each with one element changed from the original (chimney-less) elevation. Two had a roof profile change and two had a verandah post or beam change. The one with the roof now changed to a low pitched hip roof (also synonymous with colonial houses) then had its remaining elements changed singly to produce a further set of four elevations - Stimuli Nos. 11, 2, 6, 13 (each now being two stages removed from the original). Another elevation that had been removed one stage from the original by the substitution of a gable roof (Stimuli No.7), was also treated with further changes: first a false central gable was added to the elevation (No.9); and, as a further development, the central portion of the verandah was eliminated to give the impression that the house had a projecting entrance wings (No.5).

* A version of this paper was presented at the PAPER '88 Conference, Sydney, August, 1988.
Original view

First Variable change

Second v.c.
Third v.c.  

Fourth v.c. plus additional
The above is the full scan of the two previous pages showing the relationship of the drawings one visual variable to the next. Number 14 is "furthest" from the original view.
It was considered that to arrive finally at a design that would appear quite ordinary and with almost no “colonialness” quality, changing only one variable at a time would create an excessive number of stimuli for purposes of administering the experiment. Therefore, the elevation with gable roof and projecting entrance wing under the gable had three principle variables modified in one step: the verandah was fully reinstated with a wider post spacing; the roof profile became a hipped roof (steeper in pitch than that of colonial house); and the existing gable was moved to one end (No.3). The minor variable of the indistinct vistas along the side verandas was filled in with the same windows as on the remainder of the original elevation. Thus, the full length verandah, the windows and the shutters individually retain colonial authenticity. From this stimulus elevation, the one variable, the verandah from under the gable, was eliminated to produce stimulus No. 10. A “final” elevation had the verandah completely removed (No.14). This last design only possessed the windows and the shutters from the original colonial house, but appears fairly much like a down-market, plain brick veneer, tiled roof, project-builder’s house.

<table>
<thead>
<tr>
<th>12</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
</tr>
</tbody>
</table>

original
view

one second third four plus
variable variable variable variable
change change change change

Figure 1. Relationship of Stimuli Changes to the Original Design; see Figure 2 for Illustrations of Stimuli on pages 24-25.

It should be pointed out that with one or two variable changes from the original the design does not necessarily become “less” colonial in general appearance. It depends on what the individual change is to the visual elements of the view of the house. For example, changing the roof from the original to an all-over hipped roof, leaving everything else constant, may even make the house appear “more” colonial to some viewers.

A second point should be made about the illustrations used, and how they were assembled. Unlike many studies that have used photographs of houses for all the examples on which judgements are to be made by subjects, these illustrations do not contain extraneous elements that are different for each visual stimulus, such as people or landscape items which, in themselves, may become artefacts to which the subjects respond. The only extraneous elements in these illustrations are the sky and foreground grass which remain constant for all the stimuli.

Each illustration was assembled, where possible, by re-using elements or parts of elements from the original design (by the method of collage) together with artwork that carefully matched the original. This was accomplished by using good quality multiple photocopies of an original black and white photograph, then rephotographing all the collage examples and the photocopy of the original design on black and white negative film. This process eliminated the slight colour and textural quality differences evident in the various grey opaque paints that were used to touch up the collage elements. Black and white positive transparencies were made from the negative film as slides for projection.

A second set of 16 stimuli were used to check whether the subjects held a clear schema of a colonial house. As there was not to be any assessment of the visual stimuli but only identification of style, the more usual colour slides of houses were used. These comprised a variety of styles from colonial, through Victorian, Federation style, Californian Bungalow to an example of the Modern Movement.

The Design Of The Experiment

The experiment is in three parts. The results being reported in this paper are those for a sample of 30 tertiary education students who had not pursued a degree course in architecture. The aim was to obtain a sample of people relatively inexpert in architectural design. (The results will, at a future date, in a paper by Purcell and Thorne, be compared to those obtained from a sample of architecture students).

The first set of (fourteen black and white) slides were set up in pairs so that similarity judgements could be made. The slides were shown to the sample which was divided into three groups, each made up of 10 students.

Based on the method used by Schiffman, Reynolds and Young (1981), the students were asked to indicate how similar the pairs were by recording a point on a five inch (12.6 cms) horizontal line labelled “very similar” at one end and “very dissimilar” at the other end.

Ross’s (1932) optimum orders for the presentation of pairs in the method of paired comparisons was used in the presentation of the slide pairs.
First, each slide was shown for a period of five seconds to familiarise the students with the stimuli. The students were then told that they would be shown the slides in pairs, and asked to place a distinct vertical mark at a point along the horizontal line to indicate how similar or dissimilar the illustrations appeared to be. Each pair was shown for a period of 10 seconds with a short blank period following each display. There was a total of 91 judgements.

At the start of the second part of the experiment the respondents were asked to write down whether they knew what a colonial house looked like, or if they were unsure of what one looked like, or if they did not know what one looked like. Then, each of the three groups of subjects were shown the same fourteen black and white illustrations, but in a different order of randomness. Upon this viewing they were asked to indicate on a horizontal line as before, how similar or dissimilar they thought each house illustration was to a colonial house. Each slide was shown for 10 seconds. Those who did not know what a colonial house looked like were asked to refrain from answering this part of the experiment. Regardless of whether they completed this stage all the students were asked to complete the concluding part of the experiment.

In the third part of the experiment the students were asked to identify, by signifying either "YES" or "NO", whether they thought each of the sixteen Australian house-designs on colour slides (that comprised the second set of visual stimuli) looked like a colonial house. Each slide was shown for 10 seconds and were shown in a different random order for each of the (same as previous) three sessions of ten students.

### Results And Discussion

There were 21 males and 9 females in the sample which was attracted to participating in the study from advertisements on campus, and the fee to be paid for the one hour-long experiment. Thirteen respondents had had some art education, mostly at secondary school.

The results will be taken in reverse order of the experiment. First, there are the answers to the question of whether the students knew what a colonial house looked like. Seventeen (57%) said they did know and 13 (43%) were unsure (with no student responding in the negative). Six of those who were unsure had had some art education, while 10 of those who were sure they knew, had had no art or design education at secondary or tertiary level schooling.

### Part Three:

**Identifying Coloured Slides of Houses as being Colonial or Not Colonial in Appearance**

Of the second set of stimuli, i.e. the 16 colour slides of Australian houses that were shown in the third part of the experiment, three were clearly identified as looking like a colonial house.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Rank Order of Houses Identified as Looking Colonial.</th>
</tr>
</thead>
<tbody>
<tr>
<td>**Identified as looking **</td>
<td><strong>Colonial</strong></td>
</tr>
<tr>
<td>Rank order</td>
<td>Style of House</td>
</tr>
<tr>
<td>1</td>
<td>Colonial (&quot;Macquarie Fields&quot; House)</td>
</tr>
<tr>
<td>3</td>
<td>Colonial</td>
</tr>
<tr>
<td>9</td>
<td>Early Victorian House &quot;Como&quot; Melbourne, dating from 1847</td>
</tr>
<tr>
<td>10</td>
<td>Builders project-home &quot;Pastiche Colonial&quot;</td>
</tr>
<tr>
<td>7</td>
<td>Award-winning house by Glen Murcutt</td>
</tr>
<tr>
<td>5</td>
<td>Mixed Gothic Revival + turn of century</td>
</tr>
<tr>
<td>6</td>
<td>Mock English Country house - attic style</td>
</tr>
<tr>
<td>8</td>
<td>Late 19th Century town houses</td>
</tr>
<tr>
<td>14</td>
<td>Contemporary Nouveau Riche &quot;Southern Mansion&quot;</td>
</tr>
<tr>
<td>13</td>
<td>19th Century Gothic Revival Terrace</td>
</tr>
<tr>
<td>4</td>
<td>Mock Tudor (1950s)</td>
</tr>
<tr>
<td>16</td>
<td>Late 19th Century single storey terrace</td>
</tr>
<tr>
<td>2</td>
<td>1980s town houses</td>
</tr>
<tr>
<td>11</td>
<td>Californian bungalow</td>
</tr>
<tr>
<td>12</td>
<td>Modern terrace at Woolloomooloo</td>
</tr>
<tr>
<td>15</td>
<td>Late 1930s moderne</td>
</tr>
</tbody>
</table>
Table 1 shows which photos were identified together with a style description of the house illustrated. (There should be a reminder that the slides were never shown in the sequential order as numbered and that the slide, number one, was not shown first for any of the three experimental sessions.

<table>
<thead>
<tr>
<th>Number of houses</th>
<th>Respondent numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 houses</td>
<td>6 persons (20%)</td>
</tr>
<tr>
<td>3 houses</td>
<td>8 persons (27%)</td>
</tr>
<tr>
<td>4 houses</td>
<td>6 persons (20%)</td>
</tr>
<tr>
<td>5 houses</td>
<td>6 persons (20%)</td>
</tr>
<tr>
<td>6 houses</td>
<td>2 persons (7%)</td>
</tr>
<tr>
<td>7 houses</td>
<td>1 person (3%)</td>
</tr>
<tr>
<td>8 houses</td>
<td>nil</td>
</tr>
<tr>
<td>9 houses</td>
<td>1 person (3%)</td>
</tr>
</tbody>
</table>

Table 2 shows the number of subjects who identified 2, 3 or more photos illustrating houses which to them looked like a colonial house. However only 3 subjects identified the only two houses where those two could be truly termed of the colonial style. Another nine subjects identified these two plus the one other, where that other was the Early Victorian, almost Regency style “Como”, South Yarra, commenced in 1847. Thus a total of 12 subjects (40%) seemed to have a reasonable idea of what colonial, or at least early 19th century Australian style, might be. Whether the subjects had taken Art at secondary school or said they knew what a colonial house looked like seemed to have no correlation with this identification. Out of the twelve, only three had taken Art, whereas of the total sample 13 (43%) had taken Art. Half (50%) of the twelve said they were unsure of what a colonial house looked like yet only 13 (43%) of the total sample admitted to being unsure.

On the face of it, these results indicate that a fair proportion (40%) of a generally well-educated population can be expected to identify early Australian styles of houses usually deemed colonial. But this cannot always be assumed to be correct because the results from part two of the study rating how similar to a colonial house is each of the collage stimuli - will be shown to confound such an assumption.

Part Two:

Rating the Collage Stimuli for Perceived Similarity to a Colonial House

The second part of the experiment was to rate, on a 5 inch (12.6 cms) long line, how similar (or dissimilar) each of the 14 black and white illustrations in the first set of stimuli were to what each subject thought a colonial house looked like. The mark on the line was measured in centimetres from the “very similar” end of the line, and the measurement entered as the rating score. Thus a low score from a subject would indicate that that subject thought the particular house illustrated looked “colonial”; a mid-way score (6.3 cms) would be an ambivalent response and a high score, approaching 12.6, would indicate that the subject thought it very dissimilar to his or her mental image of what represented “colonial”.

Whether or not it is because there is a strong visual quality consistency across the slides, and that some elements such as the window design are constant across a number, or even all illustrations, the results are less positive than those for simply identifying which house looks colonial, as reported above. In this part of the experiment there is a high degree of variance from the lowest to highest scores. Over a 12.6 scale the variance ranged from 8.5 for Stimulus No. 8 to 12.4 for Stimulus No. 10. This means that a number of subjects, in making judgements for one or more illustrations, were diametrically opposed in their perception of whether the building in the picture looked like a colonial house. However, even with this high variance, the lowest mean score is 2.8 and the highest 8.7. If all the scores for each subject and slide are tabulated and an arbitrary range of scores, say, from zero to 2.9, are marked (upon the assumption that about this range would indicate similarity to a colonial house) a pattern is produced that supports the means. The number of low scores (from zero to 2.9) obtained for each illustration are tabulated together with rank order of mean scores in Table 3.

Collage illustrations numbers 11, 8 and 2 seem clearly to appear like a colonial house. The next group, numbers 12, 6, 13 and 1, are seen as being somewhat “less” colonial, but the house pictured in No. 1 is the same house that received a 100 per cent response to it appearing colonial in the coloured slides. (This discrepancy will be later discussed.)
TABLE 3  How Similar/Dissimilar to Subjects’ Image of what a Colonial House Looks Like

<table>
<thead>
<tr>
<th>Rank Order from Very Similar down to Very Dissimilar to a Colonial House</th>
<th>Stimulus Number</th>
<th>Mean Score</th>
<th>Variance in Subjects’ Scores (Scale = 12.6)</th>
<th>Number of low scores, 0 to 2.9 (assumed to indicate reasonable similarity to a Colonial House)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>2.8</td>
<td>10.0</td>
<td>18 mentions</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>2.9</td>
<td>8.5</td>
<td>15 mentions</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3.7</td>
<td>12.2</td>
<td>14 mentions</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>4.6</td>
<td>11.2</td>
<td>9 mentions</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>4.7</td>
<td>12.1</td>
<td>11 mentions</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>4.8</td>
<td>12.1</td>
<td>9 mentions</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>5.2</td>
<td>11.8</td>
<td>9 mentions</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
<td>6.2</td>
<td>11.5</td>
<td>3 mentions</td>
</tr>
<tr>
<td>9</td>
<td>7</td>
<td>6.6</td>
<td>10.4</td>
<td>4 mentions</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>7.1</td>
<td>11.6</td>
<td>3 mentions</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>7.4</td>
<td>11.2</td>
<td>2 mentions</td>
</tr>
<tr>
<td>12</td>
<td>10</td>
<td>8.0</td>
<td>12.4</td>
<td>1 mention</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>8.0</td>
<td>11.2</td>
<td>4 mentions</td>
</tr>
<tr>
<td>14</td>
<td>5</td>
<td>8.7</td>
<td>9.0</td>
<td>0 mentions</td>
</tr>
</tbody>
</table>

TABLE 4  Description of Illustrations seen to be Similar to a Colonial House (Black and White Stimuli)

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Slide Number</th>
<th>Description of Roof</th>
<th>Description of Verandah post and beams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>low pitch, hipped, covering the whole</td>
<td>widely spaced, square</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>low pitch, hipped, covering the whole</td>
<td>narrowly spaced, square</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>low pitch, hipped, covering the whole</td>
<td>widely space, slightly arched</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>low hip over centre; flat over verandah</td>
<td>widely space, square</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>low pitch, hipped, covering the whole</td>
<td>narrowly space, fully arched</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>low pitch, hipped, covering the whole</td>
<td>narrowly space, slightly arched</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>low hip over centre; flat over verandah</td>
<td>narrowly space, square</td>
</tr>
</tbody>
</table>

Interestingly, Stimulus number 12 rated a little higher than the “truly” colonial house (number 1). Number 12 is the same illustration but with a doubling of the space between the verandah posts. To an architect, or anyone who knows the elements used and how they are used in colonial houses, stimulus number 6 is the “wild card”. The roof conforms to the top three slides rated as being similar to a colonial house, but the verandah is most uncolonially arched or arcaded. (This is an important result and will be discussed in relation to the results of Part One of the study.)
In relating the results of Parts Three and Two of the study it will be found that of the 12 subjects who assessed the two colonial or the two colonial-plus-
'Como' coloured slides as being colonial, only 3 also identified what could be termed "close" to colonial in the collage illustrations. Two subjects were en-
tirely at odds with their identification of the coloured slides, and the remaining seven showed only a partial correlation between their ratings in Part Two and
their identification in Part Three.

Why these results are not conclusive through cor-
relation is that many subjects might identify the
"correct" examples but they also identify quite a few
non-colonial examples as being colonial, which in-
dicates that their learnt schema for "colonial house" is
neither precise nor accurate. The results to Part
Two of the study support the hypothesis that non-
ar-
chitects are both inexpert in identifying the colonial 
style, and that what they perceive as "colonial" is
weighted by the shape of at least one design element.

Within Cluster A, stimuli 1 and 4 are most fre-
quently linked together, showing that the arching
of the beams between columns has little effect
while the elimination of every second column in
number 12 has only slight effect.

Within Cluster C there appears to be a fairly consist-
ent link between 8, 13, 6. All have the same roof so
the differences or dissimilarities lie in the post and
beam design. Number 8 has the original narrow post
spacing as do 13 and 6, but the last two have a slightly
arched and semi-circular "beams" respectively. Stimuli
2 and 11 have every second post eliminated, the
former with slightly arched beams, the latter's
beams being horizontal and square. Overall in this
cluster there are five stimuli with five different
verandah treatments - one of them, the arcaded
verandah, was intended to cut across or destroy the
"colonialness" quality of the building - yet they are
all seen as being relatively similar.

Within Cluster B either 10 and 3 or 10 and 14 are
linked together, that is, for this design which is basic-
ally a constant (No. 14) with only the addition of a
half verandah (No. 10) or full verandah (No. 3),
some subjects have linked the half verandah version
to the non-verandah design, while others have linked
it in similarity to the full verandah version.

Cluster D, comprising 5, 7, 9 may consist of outliers
and this may account for their clustering together,
because, for a number of subjects the links between
these are not as strong as the links between other
stimuli. Stimuli 7 and 9 are most frequently linked.
The reason for the weakness in this cluster is evident
from the illustrations. Whereas the stimuli in the
other clusters have only one design variable change
from each to the other stimuli, stimulus number 5 has
two major design changes and two minor changes
from number 7, while number 9 has one variable
change from 7. The false gable on 9 is not sufficient
to remove the similarity between it and 7, but a
number of subjects find the impression of a Tec leg,
projecting from the house, is sufficient change to
destroy the similarity between the stimuli.

A most important point to make is that across
clusters there are identical attributes such as the
design of all the elements below the roof line (for
example, in stimuli 7, 1 and 8) yet this similarity is
not sufficiently recognised by the subjects to
produce clusters of these attributes. Therefore it
must be concluded that roof shape or the top-most
surface contour is, for our Australian, relatively mid-

dle class, young subjects, the most important
attribute that indicates similarity of design in houses.
Accordingly, there seems to be a relatively high
degree of perceptual acuity for roof shape but not
for a number of other design elements of a house
(as, for example, the verandahs in Cluster C). Cer-
tainly, some researchers in Western countries have

Part One:

Similarities Judgements between Pairs of
Collage Illustration Stimuli

The similarities judgements made by each subject
were measured in centimetres and the measured
scores then entered on a 14 by 14 matrix. This data
was then entered and processed using the "Systat"
statistical package. Monotonic multidimensional
scaling, minimising Guttman/Lingoes coefficient of
alienation in 2 dimensions, 3 dimensions and 4
dimensions, produced final configuration stress
values that were high (for each set of dimensions).
These values indicated that this method of analysis
was unsuitable for this data. An inspection of the
variables plotted on the co-ordinates for 2, 3 and 4
dimensions show that there are very tight clusters of
variables (stimuli) rather than a close distribution
that could be interpreted as a dimension in
Euclidean space. Accordingly this statistical
method proved itself to be unsuitable to process this
data.

The data was then cluster analysed and the results
are very positive. The dendrograms show clusters of
stimuli that have very strong similarities.

A strong set of four clusters consistently emerge for
this group of subjects. The stimuli are:

Cluster A  1, 4, 12
Cluster B  3, 10, 14
Cluster C  2, 6, 8, 11, 13
Cluster D  5, 7, 9
shown how important the roof is in identifying a house as being a ‘house’ (e.g. Becker, 1977; Mulvihill, R. and McHugh, S. 1977; Cooper, 1974; Marc, 1977). And it must be pitched. Purcell’s (1984a, 1984b, 1984c, 1986) work on goodness of example and prototypicality in houses and the adaptation of his findings in Groves and Thorne (1988), also illustrates the importance of a pitched roof.

If these results are taken in conjunction with those for Parts 2 and 3 of the study it becomes evident that the roof design in particular, together with only an overall impression or essence of other visual attributes transmits the message that a house looks colonial - unless, of course, a person has specifically learnt what actually comprises a colonial house (as a very few of the subjects have evidently done). Put another way, a change in one attribute - the roof shape - outweighs all other attributes, whether changed or not changed.

**Conclusion**

So, how do people perceive and judge a house to be colonial? First, there is a major determining attribute - not necessarily always the roof shape - but beyond that it seems that identification might rely on either a hierarchy or “thingsiness”. Cuff and Hooper (1979) showed that people seem to identify a building from a few features which provide the essence of that building - just as people who do not know one dog breed from another, recognise “doggishness” features, and identify dogs. In the same way most of the subjects in this study might have identified “colonialishness” in the black and white collage stimuli through the attribute of the roof being most important in the hierarchy of perception that produces recognition. In the coloured slides other different attributes may have been dominant and similarly indicated the essence of colonialism to the viewer - even if incorrect.

Perhaps Arnheim (1969; 55-56) was right when he said “similarity (in this case between the stimulus and the schema) will exert its unifying power only if the structure of the total pattern suggests the necessary relation … this means that the cognitive operations inherent in the perception of visual patterns are typically of a much higher order than mere connection by resemblance”.

In summary, the above research found that non-architect-trained Australians (with partial tertiary education) can identify an example of a colonial house, but many of them also thought that one or more other designs were “colonial” when they were not. However, most of these designs did contain at least some visual design elements associated with usually accepted colonial houses (i.e. pre-Victorian). In the similarities judgements of the pictures that illustrated incremental design changes to a colonial house, it was evident that respondents associate the “colonial” quality or image with a very few design elements - most important is the roof shape, and its accuracy to conform to a type, then the fact that the house has a verandah, although the “purity” of that feature as a colonial design seems somewhat irrelevant. The results support the Gestalt theory that objects/animals etc. have a learnt “ishness” quality, like doggishness (Arnheim, 1954) which provides a generic understanding - a kind of prototypicality of the object. It therefore does not allow untrained people to discriminate a precise category to which the object, animal etc. belong.

Accordingly, if people say they “can’t tell one make of car from another”, or “one breed of cow from another”, then many people will buy houses which impart to them, individually, a feeling of “colonialishness”, or “Spanishness” etc. which is sufficient to satisfy their desire for a colonial or Spanish house, whatever the reasons for such choice of style might be.

**References**


