

The decorative elements guidelines environmental sciences essay



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In the case of George Town, the drainage guidelines suggested that proper drainage should be provided at the building perimeter to ensure that water does not splash against a building or foundation walls nor drain towards the building. In the case of Springfield, the rainwater drainage guidelines suggest inspecting the spout at least twice a year for signs of deterioration or failure. Any debris that hinders water flow should be cleaned out. In addition, gutters and downspouts should be painted to blend with the building and its trim colour. If gutters need to be replaced, use the same type of gutter that was originally used on the building. While in the case of Richmond, to decrease cleaning and maintenance of gutters and downspouts, gutter screening both at down-spouts and over the full length of all gutters should be installed. Gutter screening at down-spouts and over the full length of all gutters help collecting debris and leaves of trees and prevent them from damaging the spouts. Based on the above, the rainwater drainage guidelines can be concluded as below: Table 6. 6: Rainwater Drainage guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Rainwater Drainage

Inspection All spouts and gutters should be inspected at least twice a year to determine any deterioration or failure. Cleaning Any debris that hinders water flow should be cleaned out. Colour Gutters and spouts, which is left to weather, should be painted with same building colour. Replacement If gutters and spouts are beyond repair, they should be replaced with the same type of

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gutter and spout that was originally used on the building. Installation Gutter screening both at down-spouts and over the full length of all gutters should be installed.

6. 5. 5 Decorative Elements Guidelines

Many residential heritage buildings in the OCG contain decorative elements. As mentioned in previous chapters that the interiors of the heritage houses are uniquely painted with intricate Berber designs, using red paint on white walls, and decorated with hanging ornaments; giving the rooms a vibrant and fascinating atmosphere, which makes Ghadames truly unique. The traditional Berber designs used include the triangle, the diamond, the sun, the moon, the palm, the eye, the hand, and the Tuareg cross. The objects used to decorate the rooms include mirrors, ornaments made of palm straw (such as food covers), brass and copper, and Berber carpets, rugs and cushions. In the case of George Town, the decorative features guidelines suggest that original decorative features, if any, shall be retained and restored. Traditional material is to be used. Decorative elements in the case of Springfield are found in masonry, doors, and roofs. The masonry guidelines in the case of Springfield suggest that details of masonry such as decorative elements, decorative bricks and stone, should be retained. In the roofs guidelines, historic roof features such as decorative elements should be retained without introducing any physical change. Also, in the doors guidelines, decorative features should be preserved. In addition, standard 6 by the Secretary of the Interior's Standards for Rehabilitation (Appendix F), where the standard explains that distinctive features, finishes, and construction techniques or examples of craftsmanship that characterise a

historic property shall be retained and preserved. Accordingly, decorative elements should be retained and preserved. Deteriorated decorative elements should be repaired if possible. If they cannot be repaired, they should be redesigned similar in nature to originals (Table 6. 7). Table 6. 7: Decorative elements guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Decorative elements

Decorative elements Decorative elements should be retained and preserved. Deteriorated decorative elements Deteriorated decorative elements should be repaired if possible. If they cannot be repaired, they should be redesigned similar in nature to originals.

6. 5. 6 Doors Guidelines

Based on the survey of the construction of the residential heritage buildings of the OCG, doors are palm boards sometimes painted in green or grey. Many doors have been replaced with newer metal doors that do not match the character of the building. Often a commercial door is replaced with a residential style door or vice versa, thus confusing the style and function of the residential heritage building. On this basis, doors guidelines should be developed for the residential heritage buildings. Doors guidelines in each of the case of Springfield and the case of Richmond, relate to doors and their features such as transoms and frames of doors as well as entrances. In the case of Springfield, doors, framing, decorative features and hardware,

including original wood storm doors should be preserved. Also in the case of Richmond, doors and their features should be retained. Thereon, the first doors guidelines for the residential heritage buildings of the OCG are:" Original heritage door and their features such as transoms and door frame should be preserved and retained if possible". For the replacement of a door in a heritage site, the guidelines in the case of George Town suggest that traditional material or similar to original material is to be used. The use of modern materials such as metal frame and tinted glass is prohibited. Modern material is allowed but shall synchronize with the existing material in terms of texture, profile, colour and etc. Light tinted, coloured and obscure glass is allowed. In the case of Springfield the guidelines suggest that if a historic door is badly deteriorated and must be replaced, the new door should match the existing door in its material and all its features. Similarly in the case of Richmond, when replacing a door, a design similar to those found historically on the residence should be used. The existing door should be used as a guide, or the home should be compared with others in the area that are of a similar date and style, and still retain their original door. As mentioned earlier, many doors of residential heritage buildings of the OCG have been replaced with newer metal doors that do not match the character of the building. Like these doors must be removed because they confuse the style and function of the residential heritage building. Accordingly, there is a need to develop guidelines to solve this problem. Therefore, the following guideline can be derived from the cases mentioned above for residential buildings of the OCG:" If the door cannot be repaired or the original does not exist, replacement of the door is allowed with ones that match the originals and also match the style of the heritage building". In addition, there are <https://assignbuster.com/the-decorative-elements-guidelines-environmental-sciences-essay/>

other guidelines relate to the entrances and which are important to preserve a residential heritage building. The guidelines concerning entrances in Springfield propose that entrance sizes and locations cannot be changed. For example, making openings smaller enlarging, removing or covering over original entry doors are not recommended. When two entries exist and only one will be used, recognise that the two doors are an important part of the original design that should be maintained. If interior remodelling makes a door non-usable, leave the entrance feature intact on the outside, while making changes to the interior. Also in the case of Richmond, traditional entrance patterns and the relationship of the house to the rest of the street should be respected. Based on the above, there is a relationship between the door and the street that should be maintained. For instance, if the door is recessed in a storefront or on a porch, it should be retained in that location. The differentiation between main entrances and secondary entrances should be retained. For example, keep porch doors more simple than the front door. On this basis, the guidelines for entrances can be developed for residential heritage buildings of the OCG as follows." Sizes and locations of entrances should be preserved and retained. Change of entrance patterns, size, and location must be avoided". Furthermore, the position of original door openings on the front elevation of facades are an important element of the overall design of a heritage building. Therefore, the guidelines in the case of Richmond, state that the position of original door openings on the front elevation or facades that are clearly visible from the street cannot be changed. In addition, alter the size of doors on the primary facades of a heritage building or install additional doors to facades visible from the street must be avoided. These guidelines can be developed in order to become

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suitable for the residential heritage buildings of the OCG. Accordingly, the following guidelines can be derived as follows." The position of original door openings on the front facades that are clearly visible from the street, the size of doors on the primary facades of a heritage building, and the additional doors to facades visible from the street should be avoided". Based upon the above, doors guidelines of the residential heritage buildings of the OCG can be summarised in Table 6. 8. Table 6. 8: Doors guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Doors

Original doorOriginal heritage door and their features such as transoms and door frame should be preserved and retained if possible. ReplacementIf the door cannot be repaired or the original does not exist, replacement of the door is allowed with ones that match the originals and also match the style of the residential heritage building. EntrancesSizes and locations of entrances should be preserved and retained. Change of entrance patterns, size, and location must be avoided. PositionThe position of original door openings on the front facades that are clearly visible from the street, the size of doors on the primary facades of a heritage building, and the additional doors to facades visible from the street should be avoided.

6. 5. 7 Windows Guidelines

Windows guidelines for the residential heritage buildings can be derived from the case of Springfield, the case of Richmond, and the case of Binbrook.

Because windows often require repair, replacement of a window is the best option if the window is beyond repair. In the case of Springfield, the windows guidelines for replacement of a window suggest that all replacement windows must be fit the original window opening exactly. In addition, reducing the window opening or adding extra shimming to fit a "standard" window that is incorrectly sized for the building is not allowed. Also, making windows larger than the existing opening should be avoided, as this can dramatically change the character of the building. These guidelines are suitable for windows of the residential heritage buildings of the OCG because they are small openings to prevent dust from entering buildings, their dimensions are 60×60cm. In the case of Richmond, the windows guidelines focus on window replacements that occurred in the past and are now considered heritage. These windows may be replaced with the type of window originally used on the building. Therefore, if these windows are beyond repair, they should be replaced with new window that matches the original window. In the case of Binbrook, the windows guidelines suggest that new windows should be installed sensitively. New window design that is compatible with the original in terms of proportions, rhythm and scale is encouraged; however, the new should not attempt to replicate the original in terms of historical details. Accordingly, the windows guidelines that can be derived from preceding discussion is as follows." Original window opening should be preserved and retained. Do not change the character of the

building by making windows smaller or larger than the existing opening".
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Windows should be repaired. If they are beyond repair, replace them with new windows that match the original window in proportions and scale as closely as possible". Besides that the windows guidelines in the case of Richmond confirmed the performance of regular maintenance on historic windows. Where the windows guidelines suggest painting and repairing whenever necessary, and also ventilating windows; these efforts will help preserve the historic windows and will also result in lower energy costs. These guidelines are fitted for the windows of residential heritage buildings of the OCG due to the harsh climate that may affect windows. Therefore, regular maintenance on historic windows in the OCG should be performed. In addition, the windows guidelines in the case of Richmond addressed features of windows such as frames, sash, and sills. They suggest that original features such as frames, sash, and sills should be retained. If these features are beyond repair, replacement of any of these elements is necessary with a new feature that match the original in material and profile. Frames are an important feature in windows of residential heritage buildings of the OCG. Therefore, guidelines related to this feature, frames, can be derived from the case of Richmond and therefore, original feature such as frames should be retained and preserved if they are repairable. If the feature is irreparable, replacement of the feature is necessary with new one that match the original in material and profile. Based on the above, the windows guidelines for residential heritage buildings of the OCG can be summarised in Table 6. 9 as follows. Table 6. 9: Windows guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Windows

Original windows The original windows should be retained whenever possible.

Replacement The missing windows or too deteriorated to repair should be replaced. Window replacements should match the originals in size, materials,

and configuration. Original window opening The original window opening should not be altered to fit new windows. Additionally, any windows that do not fit the original openings should be removed if possible.

6. 5. 9 Plastering Guidelines

Based on the survey of the construction of the residential heritage buildings about plastering in the OCG, internal walls of residential heritage buildings, floor, roofs, parapets, and external frames of doors and windows are plastered by using a 3-5 cm layer of fine gypsum. Some external walls are plastered to enhance their appearance by using red soil or to reduce erosion by using adobe mortar. Namely, not all external walls of residential heritage buildings of the old city are plastered because there are some external walls are left in their natural state (See Figure 6. 2). Additionally, all materials used

in the residential heritage buildings of the OCG are locally available in the city. D: amalPhD-WorkDesign-Guidelinesdata-ghadamesphoto new

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2012574711_459088054121469_1353003621_n. jpgFigure 6. 2 : Example of

unplastered external walls in the OCGSource: Mancipility of the old city of <https://assignbuster.com/the-decorative-elements-guidelines-environmental-sciences-essay/>

In addition to the survey mentioned above, the survey of the defects in the residential heritage buildings of the OCG which revealed that some residential heritage buildings in the OCG suffer from some defects that relate to deterioration of building material such as gypsum plaster. By analysing the data gathered by both surveys of the construction of the residential heritage buildings and the survey of the defects, it can be noted that plastering guidelines related to the materials used to process of plastering should be derived from the case studies selected for this research. In other words, to preserve walls of residential heritage buildings in the OCG, guidelines about plastered walls, unplastered walls, and deterioration of building material should be developed. Plastering guidelines for residential heritage buildings in the OCG can be derived from the case of Maitland. It is the best case study that fits for the OCG because it contains several guidelines relate to plastered walls in comparison with the other cases selected. In the case of Maitland, the external walls are plastered with lime. The guidelines in this case suggest that plastered walls should be preserved. If the wall is beyond repair because the material, lime, is deteriorated; use a new material that matches the existing lime in all its characteristics. In addition, modern strong cement renders cannot be used rather than limes because it can cause dramatic decay. Accordingly, the plastering guidelines for residential heritage buildings of the OCG can be summarised in Table 6.

10. Table 6. 10: Plastering guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Plastering

Plastered internal and external walls Plastered internal and external walls should be retained and preserved. Replacement of material If the plastered wall is irreparable, use a traditional material that matches the original material in all its characteristics. Using modern strong materials such as cement must be avoided. Unplastered walls Unplastered walls should be retained and preserved in their natural state. Plastering walls that are unplastered should be avoided.

6. 5. 10 Painting Colour Guidelines

There are two materials, lime and white gypsum, used for painting of walls of the residential heritage buildings of the OCG. Lime is used for whitewashing internal walls, floors and roofs. White gypsum is used as a whitewash for whitewashing external walls, parapet walls, passageway walls, and arches. The painting colour guidelines for the residential heritage buildings of the OCG can be derived from the case of Springfield and the case of Maitland. The colour painting guidelines in the case of Springfield suggest that the existing painted features should be repainted in the exact same colour, without introducing any change in building or trim colour. Unpainted wall should be left in natural state without applying any colour painting. For selecting a new colour, the guidelines suggest to investigate what colours were used on the building historically. Colours selected should be compatible with each other. In the case of Maitland, the colour painting guidelines

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suggest to perform general maintenance for repainting of buildings. Colour schemes which are in keeping with the period of the building will enhance its character and the surrounding area. Based on above discussion, the colour painting guidelines for the residential heritage buildings of the OCG are as follows. Table 6. 11: Painting Colour guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Painting Colour

Painted features and walls Painted features and walls should be repainted in the same colour. Unpainted features and walls Unpainted features and walls should be retained in their natural state without painting. New colour New colour can be used if it matches the existing original colour used on the building historically. General maintenance Repainting of buildings should take place as part of general maintenance.

6. 5. 11 Timber Guidelines

The fit case for the derivation of the timber guidelines for residential heritage buildings of the OCG is the case of Maitland. The timber guidelines in the case of Maitland suggest to keep timber dry to reduce the risk of wood deterioration as a result of fungal rot, attack by borers and termites, and swelling and shrinkage cracking. To keep timber dry, the guidelines suggest to control and confirm that roof drainage, guttering and stormwater drains are operating properly, and that surface sends off drained away from walls.

According to the survey of the defects in the residential heritage buildings of the OCG, there are some roofs and floors in which the timber, made of palm trunks, is attacked by fungus and insects. Accordingly, the timber guidelines for residential heritage buildings of the OCG should include: " Keeping timber dry is very important to reduce the risk of wood deterioration as a result of an attack by fungus and insects. In addition, all spouts and gutters should be inspected regularly to determine any deterioration or failure". Additionally, the timber guidelines in the case of Maitland suggest using some coatings such as paints, varnishes, waxes and oils. Using of these coatings helps controlling swelling as well as protecting and enhancing timbers. As mentioned earlier that timber in the OCG suffer from some biological decay caused by fungus and insects. Therefore, these guidelines are suitable for the timber guidelines in the OCG. Then, the timber guidelines for residential buildings of the OCG should also include: " Coatings such as paints, varnishes, waxes and oils should be used regularly to protect and enhance timbers". For the regular maintenance, the timber guidelines in the case of Maitland suggest that wooden items need regular maintenance and should be inspected every six months. Sub-floor spaces should be inspected for signs of rot and termites, and roof spaces for evidence of leaks which may lead to fungal growth. The guidelines suggest also replacement of deteriorated wood material with a new material that should be reconstructed in the original form of the damaged section so that the repair does not detract from the appearance of the original work. These guidelines are fitted for the residential heritage buildings of the OCG because they suffer from lack of the routine maintenance as it was indicated by the survey of the defects mentioned previously. Therefore, the timber guidelines in the OCG

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should also include:" Regular maintenance should be applied at least every six months. Wooden items such as sub-floor spaces and roof spaces should be inspected regularly. If wooden items are beyond repair, replace them with a new wooden item that matches the original form of the damaged section".

Based upon the above, the timber guidelines for residential heritage buildings of the OCG can be outlined in Table 6. 12. Table 6. 12: Timber guidelines for OCG residential heritage buildings

Component

Item

Guidelines

Timber

Keeping timberKeeping timber dry is very important to reduce the risk of wood deterioration as a result of an attack by fungus and insects. In addition, all spouts and gutters should be inspected regularly to determine any deterioration or failure. CoatingsCoatings such as paints, varnishes, waxes and oils should be used regularly to protect and enhance timbers. Routine maintenanceRegular maintenance should be applied at least every six months. Wooden items such as sub-floor spaces and roof spaces should be inspected regularly. If wooden items are beyond repair, replace them with a new wooden item that matches the original form of the damaged section.

6. 6 Summary

The main purpose of this research is to determine the structural integrity of the residential heritage buildings of the old city of Ghadames as well as to provide and develop conservation guidelines for repairing and conserving

those heritage buildings. The research finds some guidelines and references for the conservation of residential heritage buildings located in the old city of Ghadames which are gazetted as national heritage buildings. Policies and guidelines provided are specifically based on an analysis of those residential heritage buildings and case studies. The research also shows that structurally damaged buildings could be seen all over the old city of Ghadames. In addition, the research revealed that there is a lack of routine maintenance and severe environmental conditions have caused extensive damages to many residential heritage buildings ranging from minor to very serious necessitating immediate intervention. This chapter presents the findings of the thesis. It provides the conclusions of the survey analysis and identified causes of damages of residential heritage buildings of the OCG as well as classifies those buildings according to the level of damages. The chapter also outlines some guidelines to conserve, maintain, and repair residential heritage buildings of the OCG. Next chapter provides the conclusions and recommendations of the thesis and a discussion of the implication of policy.