

Adaptive
REUSE

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Adaptive **REUSE**

Extending the Lives of Buildings

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Contents

Preface 6

00 Babel 8

01 New Order: The Frankenstein Syndrome 30

02 Plunder: Erasure & Redemption 42

03 The Quest for Immortality 58

04 Battle of the Immortals 72

05 Immortality Redefined 80

06 Immortality Codified 90

07 Hosts [and Guests] 102

08 Considering DNA 122

09 Ghosts 136

10 Fitting In 148

11 The Impassive Host 162

12 Sited Interventions 176

13 The Mathematics of Reuse 190

14 A New and Distant Frontier 224

15 Second Violin 240

Illustration Credits 247

About the Author 252

Index 253

Preface

Adaptive reuse has existed since time immemorial. The reuse of caves as domicile and animal pelts as clothing are early instances of man's resourcefulness. The same resourcefulness is evident in today's built environment when we extend structures that can no longer accommodate their program of use or give another life to materials through recycling. Such projects of reuse, born of common sense and economy, are referred to by many names today: refurbishment, renovation, rehabilitation, remodeling. They are serviceable and respectable and provide for the quotidian spatial needs of society.

Over time a variant of reuse emerged, one of poetic and artistic design intervention in heritage sites, such as Carlo Scarpa's timeless adaptive reuse of the Castelvecchio in Verona, Italy, as a museum of Romanesque sculpture. Until the second half of the 20th century, adaptive reuse projects were primarily the former. The latter were venerated as rare and not-to-be replicated works of art. Recent decades and their focus on climate change have brought about a shift in this division of adaptive reuse projects. With a global focus on the conservation of resources, there are now, more than ever, concerted efforts to evaluate the potential of existing and outdated structures for reuse rather than to demolish and build anew. These efforts pertain to structures with heritage value but also to those with less historic or architectural significance. This profound embrace of altering architecture for new use as an equally fulfilling and exciting endeavor has brought about a paradigm shift in which "starchitects" as well as the other stars in the design galaxy engage in adaptive reuse with diverse and fascinating approaches. There is only one Carlo Scarpa but today there is a new wealth of rich and varied projects of reuse that extend the lives of structures.

Within these pages I attempt to understand and convey the approaches of adaptive reuse through the examination of its place in history, its relationship to adjacent fields, its place within shifting norms of art, culture and society and its typological differences, so as to illuminate a neglected subject in its own light. This body of work has its foundation at the millennium in the Rhode Island School of Design's Department of Interior Architecture. Here, a scrappy young department under the farsighted headship of Brian Kernaghan redefined the scope of interior architecture and broadened its scope so as to encompass the reuse of structures—great and small—in the built environment. The many ideas within this book have their genesis in both the many collegial conversations among our faculty and the *Int/AR Journal* on Interventions & Adaptive Reuse that I co-founded in 2008 with my colleagues Markus Berger, Heinrich Hermann and Ernesto Aparicio.

I am most grateful to those who contributed to the realization of this project, especially the student assistants who shared their impeccable organizational

and design skills, in particular Jenna Balute, Clara Halston and Yue Zhang. This book would not be what it is without Silke Nalbach, whose graphic design vision gave my words a visual life of their own. I especially want to thank my editor, Andreas Müller, who believed in this book and whose embrace of the Frankenstein syndrome right from the start was the beginning of a journey guided with both wisdom and wit. Most of all I want to thank the many students who have taken my theory classes over the years at RISD. The ideas, the language and the visual components are representative of our many conversations together on adaptive reuse. From the USA, Canada, Qatar, Indonesia, France, Estonia, Singapore, Turkey, Portugal, China, the Philippines, Saudi Arabia, India, Korea, Guatemala, Honduras, Pakistan, the Netherlands, Mexico, Jordan, Italy, Japan, Lebanon, Thailand, Venezuela, Spain: you are the inspiration for this book.

Providence, RI
September 2016

The Arts never die. Their principles remain true for all time, because humanity is always the same. However its customs and institutions may be modified, its intellectual constitution is unchanged: its faculty of reasoning, its instincts and sensations proceed from the same source now as they did twenty centuries ago. It is moved by the same desires and the same passions, while the various languages it employs do but enable it to express in every age the same ideas, and to call for the satisfaction of the same wants.

EUGÈNE VIOLLET-LE-DUC¹

The story of adaptive reuse is interwoven with the history of ancient monuments and the development of policy for the preservation of heritage. The telling of this tale necessarily comprises terminology already embedded in this history—from conservation to restoration and from preservation to maintenance. These terms exist in multiplicity, with nuanced and, at times, disparate definitions (and opinionated viewpoints) for the same word. Characterized by what Italian conservationist/architect Giovanni Carbonara calls “the historical fickleness of the very concept of conservation,”² these terms, in and of themselves, convey a history not just of the many changes within the field but one that illuminates and explicates the roots of an emerging adaptive reuse practice.

The regard for and the desire to protect heritage has recorded instances in the Ancient Far East, Classical Greece, the Roman Empire and medieval Europe, but a common terminology related to modern preservation, restoration and conservation emerged primarily from the early 19th-century efforts to preserve and restore key monuments damaged in the French Revolution. Without formal precedent, the notions of preservation and restoration were shaped by a series of events centered upon an unsuspecting Viollet-le-Duc and an advocacy for stylistic restoration. The firestorm unleashed by opponents of such practice in an anti-Restoration rhetoric eventually formed the foundation of the modern conservation movement. As such, these terms—restoration, conservation and maintenance—each reference an original intent.

Since the late 19th century, art and architectural historians, curators, architects, archaeologists, conservationists and art critics have reflected upon, dissected, reinterpreted, redefined and expanded upon these terms. In his seminal 1903 essay *Der moderne Denkmalkultus: Sein Wesen und seine*

Babel

00

FIG. 0: *Turris Babel*, Athanasius Kircher, Amsterdam, 1679. (manipulated detail)



Entstehung (*The Modern Cult of Monuments: Its Essence and Its Development*) Alois Riegl refers to “the modern cult of monuments or historic preservation,” inferring an equivalence between a 20th-century approach to heritage and historic preservation while offering differentiated values that define the modern monument. With a proliferation of viewpoints, events in history and developments in methodology, in conjunction with an ever-changing set of mores, these terms continued to evolve. The ensuing endless cycle of shifts was aptly described by Marguerite Yourcenar: “The great lovers of antiquities restored out of piety. Out of piety, we undo what they did.”³

In his concept of *Kunstwollen*, Riegl proposes that “[m]an is not only a passive sensorily recipient being, but also a desiring, active being who wishes to interpret the world in such a way (varying from one people, region or epoch to another) that it most clearly and obligingly meets his desires.”⁴ This human condition accounts for much of the changing nature of the terminology around conservation and preservation practices. In the years since the aftermath of the French Revolution, there was an expansion of what we preserve and how preservation takes place—changes reflective of man interpreting the evolving world around him.

In the early 20th century, the expansion of this field began to overlap with art conservation, in which semi-ruined sculpture and built heritage evoked similar strategies of recovery. In the international collaboration of post-World War II, the definition of heritage extended from built monuments to groups of buildings and sites, urban landscapes, landscapes, cultural landscapes, modern built heritage of the 20th century, vernacular heritage and, most recently, intangible cultural heritage. Each expansion of scope has been accompanied by a change in related terminology to reflect such development. As a result, many identical terms have accumulated augmented definitions with the passing of time.

Many of the terms referred to in this book have more than one definition. As in the mythical Tower of Babel from the biblical Book of Genesis, this variation of language leads to confusion in the use of these terms. For example, the 1995, 2006 and 2016 definitions of “preservation” by the U.S. Department of the Interior differ one from the other, reflecting the particular context in which the term was defined. As this book focuses on adaptive reuse (rather than conservation or preservation), the significance of these terms is not conditioned upon a single understanding defined at a single moment in time. Rather, it is these very shifts in the understanding of conservation and preservation that give rise to and provide the basis of adaptive reuse practice. Conservation as addressed in the Venice Charter of 1964 can, in fact, be viewed as a foundation of adaptive reuse while subsequent definitions broaden its scope.⁵

Within the alphabetical order of this babylonian list, the various definitions, interpretations, opinions and uses of each term are organized chronologically.

While by no means comprehensive, they include perspectives, wherever possible, from different viewpoints: earliest definitions, official adopted language of international organizations such as ICOMOS, international building regulations (United Kingdom and USA), building science and historic commissions. Notably, the oldest terms are “restoration” and “maintenance,” terms from the 19th century that attest to the origin of conservation practice. Conversely, the newest terms are definitions of only the past decade or so, often driven by building engineering. Some terms include many different viewpoints while others are defined only through a particular lens. While it is the intent of this book to embrace this less-than-cohesive language reflecting the many efforts made in the quest of a similar goal, the term “preservation” used throughout implies a broad interpretation such as that of Paul Philippot’s 1972 definition of “being equivalent ... to conservation or restoration—[and] can be considered, from this point of view, as expressing the modern way of maintaining living contact with cultural works of the past.”⁶ As the story unfolds, it is hoped that the reader will refer to these changing definitions and, in doing so, understand their development between “the emphasis on either practical craftsmanship or subtle theoretical interpretation of principle ...”⁷

1 Eugène Viollet-le-Duc, *On Restorations* (London: Sampson Low, Marston, Low and Searle, 1875), p. 9. 2 Giovanni Carbonara, “The Integration of the Image: Problems in the Restoration of Monuments,” in Nicholas Price, M. Kirby Talley, Jr., and Alessandra Melucco Vacarro, eds., *Historical and Philosophical Issues in the Conservation of Cultural Heritage* (Los Angeles: The Getty Conservation Institute, 1996), p. 236. 3 Marguerite Yourcenar, “That Mighty Sculptor, Time,” in Price, Talley, Jr., and Melucco Vacarro, eds., p. 214. 4 Alois Riegl, “The Main Characteristics of the Late Roman Kunstwollen” (1901), in Christopher S. Brown, ed., *The Vienna School Reader, Politics and Art Historical Methods in the 1930s* (New York, NY: Zone Books, 2000), p. 95. 5 *International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964)*, Article 5, ICOMOS The International Council of Monuments and Sites. 6 Paul Philippot, “Historic Preservation: Philosophy, Criteria, Guidelines, I,” in Price, Talley and Vacarro, eds., p. 268. 7 Carbonara, p. 236.

Adaptation

Any work to a building over and above maintenance to change its capacity, function or performance.¹

JAMES DOUGLAS, 2006

Adaptation means the process(es) of modifying a place for a compatible use while retaining its cultural heritage value. Adaptation processes include alteration and addition.²

ICOMOS NEW ZEALAND, 2010

Adaptation means changing a *place* to suit the existing *use* or a proposed use.³

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

Addition

Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings.⁴

THE VENICE CHARTER, 1964

Alteration

Action to secure the survival or preservation of buildings, cultural artefacts, natural resources, energy or any other thing of acknowledged value for the future.⁵

BS7913:1998, BRITISH STANDARDS INSTITUTION

Modifying the appearance, layout, or structure of a building to meet new requirements (Watt, 1999). It often forms part of many adaptation schemes rather than being done on its own.⁶

JAMES DOUGLAS, 2006

A change in formation, that is removal of partition walls to enlarge a space within the fabric of a building, or conversely the introduction of partition walls to subdivide a space into smaller units.⁷

PAUL WATSON, 2008

Work intended to change the function or appearance of a place.⁸

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND'S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

Conservation

The conservation of monuments is always facilitated by making use of them for some socially useful purpose.⁹

THE VENICE CHARTER, 1964

Action to secure the survival or preservation of buildings, cultural artefacts, natural resources, energy or any other thing of acknowledged value for the future.¹⁰

BS7913:1998, BRITISH STANDARDS INSTITUTION

Conservation is the ensemble of means that, in carrying out an intervention on an object or its environment, seek to prolong its existence as long as possible.¹¹

MARIE BERDUCOU, 1990 (ARCHAEOLOGY)

[A]ll efforts designed to understand cultural heritage, know its history and meaning, ensure its material safeguard and, as required, its presentation, restoration and enhancement. (Cultural heritage is understood to include monuments, groups of buildings and sites of cultural value as defined in article one of the World Heritage Convention).¹²

ICOMOS, NARA DOCUMENT ON AUTHENTICITY, 1994

Modern conservation is principally characterized by the fundamental change of values in contemporary society, a paradigm based on relativity and the new concept of historicity.¹³

JUKKA JOKILEHTO, 1999

The use of the term Conservation in the title of this series refers to the whole subject of the care and treatment of valuable artefacts, both movable and immovable, but within the discipline conservation has a meaning which is distinct from restoration. Conservation used in this specialized sense has two aspects: first, the control of the environment to minimize the decay of artefacts and materials; and, second, their treatment to arrest decay and to stabilize them where possible against further deterioration.¹⁴

SERIES EDITORS, ELSEVIER/BUTTERWORTH-HEINEMANN, 1999

Preserving a building purposefully by accommodating a degree of beneficial change.¹⁵

JAMES DOUGLAS, 2006

The process of managing change to a significant place in its setting in ways that will best sustain its heritage values, while recognising opportunities to reveal or reinforce those values for present and future generations.¹⁶

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND'S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

Preservation of the existing building and its fabric and fittings, in their current state, for the future. Restoration implies a degree of repair to bring fabric, components or fittings back to an acceptable standard.¹⁷

PAUL WATSON, PROFESSOR OF BUILDING ENGINEERING, 2008

The process of caring for a place so as to safeguard its cultural heritage value.¹⁸

JOHN H. STUBBS, 2009

The purpose of conservation is to care for places of cultural heritage value. Conservation means all the processes of understanding and caring for a place so as to safeguard its cultural heritage value. Conservation is based on respect for the existing fabric, associations, meanings, and use of the place. It requires a cautious approach of doing as much work as necessary but as little as possible, and retaining authenticity and integrity, to ensure that the place and its values are passed on to future generations.¹⁹

ICOMOS NEW ZEALAND CHARTER, 2010

Conservation means all the processes of looking after a *place* so as to retain its *cultural significance*.²⁰

CLAUSE 1.4, *THE BURRA CHARTER*, ICOMOS AUSTRALIA, 2013

The objective of conservation is to maintain the significance of the architectural heritage or site. Significance is constituted in both the tangible and intangible forms.²¹

INTACH (INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE) CHARTER, 2016

Conversion

Making a building more suitable for a similar use or for another type of occupancy, either mixed or single use.²²

JAMES DOUGLAS, 2006

[w]ork including a change in function or change in use, such as converting an office block and making it suitable for residential use ...²³

PAUL WATSON, 2008

Conversions always affect the structure of a building. They extend the concept of refurbishment to interventions in the loadbearing members and/or the interior layout.²⁴

GEORG GIEBELER, 2009

Extension

Expanding the capacity or volume of a building, whether vertically by increasing the height/depth or laterally by expanding the plan area.²⁵

JAMES DOUGLAS, 2006

[W]ork that includes an increase in size, which can be horizontal or vertical expansion ...²⁶

PAUL WATSON, 2008

Any extension is a new structure that is directly connected with the use of the existing building.²⁷

GEORG GIEBELER, 2009

Maintenance

Take proper care of your monuments, and you will not need to restore them. A few sheets of lead put in time upon a roof, a few dead leaves and sticks swept in time out of a water-course, will save both roof and walls from ruin. Watch an old building with an anxious care; guard it as best you may, and at any cost, from every influence of dilapidation. Count its stones as you would jewels of a crown; set watches about it as if at the gates of a besieged city; bind it together with iron where it loosens; stay it with timber where it declines; do not care about the unsightliness of the aid; better a crutch than a lost limb; and do this tenderly, and reverently, and continually, and many a generation will still be born and pass away beneath its shadow. Its evil day must come at last; but let it come declaredly and openly, and let no dishonouring and false substitute deprive it of the funeral offices of memory.²⁸

JOHN RUSKIN, 1880

It is for all these buildings, therefore, of all times and styles, that we plead, and call upon those who have to deal with them, to put Protection in the place of Restoration, to stave off decay by daily care, to prop a perilous wall or mend a leaky roof by such means as are obviously meant for support or covering, and show no pretence of other art, and otherwise to resist all tampering with either the fabric or ornament of the building as it stands; if it has become inconvenient for its present use, to raise another

er building rather than alter or enlarge the old one; *in fine* to treat our ancient buildings as monuments of a bygone art, created by bygone manners, that modern art cannot meddle with without destroying.²⁹

WILLIAM MORRIS, 1887

[C]ontinual activity to ensure the longevity of the resource without irreversible or damaging intervention.³⁰

ICOMOS APPLETON CHARTER, 1989

Actions which “retain an item in, or restore it to, a state in which it can perform its required function.”³¹

BS3811:1993 BRITISH STANDARDS INSTITUTION

A “combination of all technical and administrative actions, including supervision actions, intended to retain an item in, or restore it to, a state in which it can perform a required function” (BS 3811:1993). Maintenance involves routine work necessary to keep the fabric of a building, the moving parts of machinery, etc, in good order (BS 7913:1992). In other words, it consists of regular ongoing work to ensure that the fabric and engineering services are retained to minimum standards (Ashworth, 1997).³²

JAMES DOUGLAS, 2006

Routine work regularly necessary to keep the fabric of a place in good order.³³

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND’S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

Repair and/or replacement work to keep or restore any/every part of a building, to current standard(s).³⁴

PAUL WATSON, 2008

Maintenance means regular and on-going protective care of a place to prevent deterioration and to retain its cultural heritage value.³⁵

ICOMOS NEW ZEALAND, 2010

Maintenance means the continuous protective care of a place, and its *setting*.³⁶

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

Modernization

Bringing a building up to current standards as prescribed by occupiers, society and/or statutory requirements.³⁷

JAMES DOUGLAS, 2006

Preservation

When we speak of the modern cult of monuments or historic preservation, we rarely have “deliberate” monuments.³⁸

ALOIS RIEGL, 1903

The word *preservation*—in the broadest sense, being equivalent in some cultures to *conservation or restoration*—can be considered, from this point of view, as expressing the modern way of maintaining living contact with cultural works of the past.³⁹

PAUL PHILIPPOT, 1972

Implies the maintenance of the artifact in the same physical condition as when it was received by the curatorial agency. Nothing is added to or subtracted from the aesthetic corpus of the artifact.⁴⁰

JAMES MARSTON FITCH, 1990

Standards for Preservation: 1. A property will be used as it was historically, or be given a new use that maximizes the retention of distinctive materials, features, spaces, and spatial relationships.⁴¹

U.S. SECRETARY OF THE INTERIOR, 1995

Preservation is defined as the act or process of applying measures necessary to sustain the existing form, integrity, and materials of an historic property. Work, including preliminary measures to protect and stabilize the property, generally focuses upon the ongoing maintenance and repair of historic materials and features rather than extensive replacement and new construction. New exterior additions are not within the scope of this treatment; however, the limited and sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make properties functional is appropriate within a preservation project.⁴²

U.S. SECRETARY OF THE INTERIOR, 1995.

[P]reservation is no longer a retroactive activity but becomes a prospective activity.⁴³

REM KOOLHAAS, 2004

Preservation is defined as the act or process of applying measures to sustain the existing form, integrity, and material of a building or structure, and existing form and vegetative cover of a site. It may include initial stabilization work, where necessary, as well as ongoing maintenance of the historic building materials.⁴⁴

U.S. SECRETARY OF THE INTERIOR, 2006

Arresting or retarding the deterioration of a building or monument by using sensitive and sympathetic repair techniques. Preservation means “the state of survival of a building or artifact, whether by historical accident or through a combination of protection and active conservation” (BS 7913:1998). It also can be defined as “the act or process of applying measures necessary to sustain the existing form, integrity and materials of an historic property” (Weeks and Grimmer, 1995). Preservation focuses on the maintenance and repair of existing historic materials and retention of a property’s form as it has evolved over time. It includes protection and stabilization measures.⁴⁵

JAMES DOUGLAS, 2006

Preservation means to maintain a place with as little change as possible.⁴⁶

ICOMOS NEW ZEALAND, 2010

Preservation means maintaining a place in its existing state and retarding deterioration.⁴⁷

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

Preservation focuses on the maintenance and repair of existing historic materials and retention of a property’s form as it has evolved over time.⁴⁸

U.S. DEPARTMENT OF THE INTERIOR, 2016

Reconstruction

Re-establishment of the design of a building or artifact, or of what existed or occurred in the past, on the basis of documentary or physical evidence.⁴⁹

BS 7913:1999 BRITISH STANDARDS INSTITUTION

Reconstruction is defined as the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.⁵⁰

U.S. SECRETARY OF THE INTERIOR, 1995

The re-establishment of what occurred or what existed in the past, on the basis of documentary or physical evidence (BS 7913:1999). Reconstruction, in other words, re-creates vanished or non-surviving portions of a property for interpretative purposes (Weeks and Grimmer, 1995).⁵¹

JAMES DOUGLAS, 2006

Reconstruction is defined as the act or process of reproducing by new construction the exact form and detail of a vanished building, structure, or object, or a part thereof, as it appeared at a specific period of time.⁵²

U.S. SECRETARY OF THE INTERIOR, 2006

Reconstruction is the rebuilding of a structure that no longer exists, i.e. strictly speaking it is new building work.⁵³

GEORG GIEBELER, 2009

Reconstruction is distinguished from restoration by the introduction of new material to replace material that has been lost. Reconstruction means to build again as closely as possible to a documented earlier form, using new materials.⁵⁴

ICOMOS NEW ZEALAND, 2010

Reconstruction means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material.⁵⁵

THE BURRA CHARTER, ICOMOS AUSTRALIA, 2013

Reconstruction re-creates vanished or non-surviving portions of a property for interpretive purposes.⁵⁶

U.S. DEPARTMENT OF THE INTERIOR, 2016

Reconstruction based on minimal physical evidence is appropriate where it is supported by the knowledge of local craftspeople, including folklore, beliefs, myths and legends, rituals, customs, oral traditions, etc. The objective of this practice must be to interpret the original meanings of the resource in the contemporary context and reinforce its bond with society.⁵⁷

INTACH (INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE) CHARTER, 2016

Refurbishment

Modernizing or overhauling a building and bringing it up to current acceptable functional conditions (Watt, 1999). It is usually restricted to major improvements primarily of a non-structural nature to commercial or public buildings. However, some refurbishment schemes may involve an extension.⁵⁸

JAMES DOUGLAS, 2006

[W]ork that is related to a change in performance.⁵⁹

PAUL WATSON, 2008

The refurbishment of a building always means adapting it to meet current standards, too, whether because of change in users' demands or new technical regulations.⁶⁰

GEORG GIEBELER AND PETRA KAHLFELDT, 2009

The difference between refurbishment and conversion, however, is that refurbishment does not involve any major changes to the loadbearing structure or interior layout. It therefore lies exactly between maintenance and conversion, but the extent of refurbishment works can vary enormously.⁶¹

GEORG GIEBELER, 2009

Rehabilitation

[M]odification of a resource to contemporary functional standards which may involve adaptation for new use.⁶²

ICOMOS APPLETON CHARTER, 1989

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alteration, and additions while preserving those portions or features which convey its historical cultural or architectural values.⁶³

U.S. SECRETARY OF THE INTERIOR, 1995

Work beyond the scope of planned maintenance, to extend the life of a building, which is socially desirable and economically viable (Watt, 1999). It is a term that strictly speaking is normally confined to housing. Rehabilitation can also be defined as "the act or process of making possible a compatible use for a property through repair, alteration and additions while preserving those portions or features which convey its historical, cultural or architectural values" (Weeks and Grimmer, 1995). It acknowledges the need to alter or add to a historical property to meet

continuing or changing uses while retaining the property's historic character.⁶⁴

JAMES DOUGLAS, 2006

An upgrade in an element or elements of a building. A suitable example here would be the installation of a new central heating system with appropriate controls and zoning, to an older property.⁶⁵

PAUL WATSON, 2008

Rehabilitation acknowledges the need to alter or add to a historic property to meet continuing or changing uses while retaining the property's historic character.⁶⁶

U.S. DEPARTMENT OF THE INTERIOR, 2016

Relocation

Relocation and dismantling of an existing resource should be employed only as a last resort, if protection cannot be achieved by any other means.⁶⁷

ICOMOS APPLETON CHARTER, 1983

Dismantling and re-erecting a building at a different site. It can also mean moving a complete building to a different location nearby.⁶⁸

JAMES DOUGLAS, 2006

Remodeling

This is a North American term analogous to adaptation. It essentially means to make new or restore to former or other state or use.⁶⁹

JAMES DOUGLAS, 2006

Renewal

Substantial repairs and improvements in a facility or subsystem that returns its performance to levels approaching or exceeding those of a recently constructed facility.⁷⁰

JAMES DOUGLAS, 2006

Comprehensive dismantling and replacement of an element of a place, in the case of structures normally reincorporating sound units.⁷¹

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND'S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

Renovation

Upgrading and repairing an old building to an acceptable condition, which may include works of conversion.⁷²

JAMES DOUGLAS, 2006

Renovation does not add anything new to the building stock, nor does it replace old with new. Instead it maintains the value and the function of the existing building through competent “upkeep.”⁷³

GEORG GIEBELER, 2009

Repair

Take proper care of your monuments, and you will not need to restore them.⁷⁴

JOHN RUSKIN, 1889

Work beyond the scope of regular maintenance ... to return a building or artifact to good order without alteration or restoration.⁷⁵

BS 7913:1998 BRITISH STANDARDS INSTITUTION

This is the “restoration of an item to an acceptable condition by the renewal, replacement or mending of worn, damaged or decayed parts” (BS 8210:1993). It is associated with the rectification of building components that have failed or become damaged through use and misuse (Ashworth, 1997).⁷⁶

JAMES DOUGLAS, 2006

Work beyond the scope of maintenance, to remedy defects caused by decay, damage or use, including minor adaptation to achieve a sustainable outcome, but not involving restoration or alteration.⁷⁷

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND’S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

Repair means to make good decayed or damaged fabric using identical, closely similar, or otherwise appropriate material.⁷⁸

ICOMOS NEW ZEALAND, 2010

Replicate

In consonance with traditional ideals, replication can be accepted as an appropriate strategy not only to conserve unprotected historic buildings, but especially if such replication encourages historic ways of building.⁷⁹

INTACH (INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE) CHARTER, 2016

Restoration

The proper meaning of the word Restoration is the re-establishment of parts of a building more or less damaged that one up-grades to its working order. In architecture, Restoration is said to be less mechanically natural than the work that the artist undertakes based on the remains or descriptions of a monument, its entirety and the comprehensive measurements, proportions and details. Very often it suffices for one to know some traces of columns, entablature and capitals of columns of a Greek architecture to rediscover the order of a temple.⁸⁰

QUATREMÈRE DE QUINCY, 1832

The term Restoration and the thing itself are both modern. To restore a building is not to preserve it, to repair, or rebuild it; it is to re-instate it in a condition of completeness which could never have existed at any given time. It is only since the first quarter of the present century that the idea of restoring buildings of another age has been entertained; and we are not aware that a clear definition of architectural restoration has as yet been given. Perhaps it may be as well to endeavour at the outset to gain an exact notion of what we understand, or ought to understand, by a restoration ...⁸¹

EUGÈNE VIOLLET-LE-DUC, 1875

[A] strange and most fateful idea, which by its very name implies that it is possible to strip from a building this, that, and the other part of its history — of its life that is — and then to stay the hand at some arbitrary point, and leave it still historical, living, and even as it once was.⁸²

WILLIAM MORRIS, 1877

It means the most total destruction which a building can suffer: a destruction out of which no remnants can be gathered: a destruction accompanied with false description of the thing destroyed. Do not let us deceive ourselves in this important matter; it is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture.⁸³

JOHN RUSKIN, 1889

Restoration is generally understood as any kind of intervention that permits a product of human activity to recover its function ... Restoration is the methodological moment in which the work of art is appreciated in its material form and in its historical and aesthetic duality, with a view to transmitting it to the future.⁸⁴

CESARE BRANDI, 1963

Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents.⁸⁵

THE VENICE CHARTER, 1964

Restoration is defined as the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period. The limited and sensitive upgrading of mechanical electrical and plumbing systems and other code-required work to make properties functional is appropriate within a restoration project.⁸⁶

U.S. SECRETARY OF THE INTERIOR, 1995

Restoration is the continuation of [conservation], when conservation treatment is thought to be insufficient, to the extent of reinstating an object, without falsification, to a condition in which it can be exhibited.⁸⁷

SERIES EDITORS, ELSEVIER/BUTTERWORTH-HEINEMANN, 1999

To bring back an item to its original appearance or state (BS 3811). It is often undertaken to depict a property at a particular period of time in history, while removing evidence from other eras. This usually involves reinstating the physical and/or decorative condition [of] an old building to that of a particular date or event. It includes any reinstatement works to a building of architectural or historic importance following a disaster such as extensive fire damage.⁸⁸

JAMES DOUGLAS, 2006

Restoration is defined as the act or process of accurately recovering the form and details of a property and its setting as it appeared at a particular period of time by means of the removal of later work or by the replacement of missing earlier work.⁸⁹

U.S. SECRETARY OF THE INTERIOR, 2006

To return a place to a known earlier state, on the basis of compelling evidence, without conjecture.⁹⁰

HISTORIC ENGLAND, PREVIOUSLY A PART OF ENGLAND'S HISTORIC BUILDINGS AND MONUMENTS COMMISSION, 2008

The return of something to a former, original, normal, or unimpaired condition.⁹¹

JOHN H. STUBBS, 2009

Restoration means finishing an incomplete structure.⁹²

GEORG GIEBELER, 2009

The process of restoration typically involves reassembly and reinstatement, and may involve the removal of accretions that detract from the cultural heritage value of a place. Restoration means to return a place to a known earlier form, by reassembly and reinstatement, and/or by removal of elements that detract from its cultural heritage value.⁹³

ICOMOS NEW ZEALAND CHARTER, 2010

Restoration means returning a *place* to a known earlier state by removing accretions or by reassembling existing elements without the introduction of new material.⁹⁴

CLAUSE 1.7, *THE BURRA CHARTER*, ICOMOS AUSTRALIA, 2013

Alteration of the fabric of a building ... or artifact ... to make it conform again to its design or appearance at a previous date.⁹⁵

JAMES SIMPSON, 2016

Restoration depicts a property at a particular period of time in its history, while removing evidence of other periods.⁹⁶

U.S. DEPARTMENT OF THE INTERIOR, 2016

Restoration is an appropriate conservation strategy to reinstate the integrity or complete the fractured “whole” of the architectural heritage/site. It must aim to convey the meaning of the heritage in the most effective manner. It may include reassembling of displaced and dismembered components of the structure and conjectural building or replacement of missing or severely deteriorated parts of the fabric. Invariably, restoration work must be preceded and followed by comprehensive documentation in order to base interventions on informed understanding of the resource and its context, and in conformity with contemporary practices of local craftspeople.⁹⁷

INTACH (INDIAN NATIONAL TRUST FOR ART AND CULTURAL HERITAGE) CHARTER, 2016