



Student name: Karma Wangchuk
Student ID: DE240180

1. The Role of Attribute Listing in Heritage Impact Assessment

Attribute listing is a foundational tool within Heritage Impact Assessment (HIA), serving as a systematic inventory of the physical, visual, and cultural elements that constitute a heritage site's Outstanding Universal Value (OUV) or local significance. In HIA, an attribute is any tangible or intangible feature that embodies the reasons a site is considered valuable (ICOMOS, 2011). The primary role of attribute listing is to provide a transparent and verifiable baseline against which potential impacts of development projects can be measured. Without a clear list of attributes, impact assessment becomes subjective, and cumulative damage may go unnoticed.

Attribute listing directly supports the protection, management, and conservation of heritage sites in three critical ways. First, for protection, it identifies vulnerable elements—such as original building materials, spatial layouts, or view corridors—that require legal or regulatory safeguarding. Second, in management, the list helps site managers prioritize monitoring efforts and allocate resources to attributes most at risk from threats like tourism pressure or climate change (Rodgers & van Oers, 2011). Finally, for conservation, attribute listing guides intervention decisions; for instance, if a listed attribute is the authentic lime plaster of a wall, conservationists will avoid incompatible modern materials. Moreover, when attributes are categorized (e.g., architectural, social, natural), it becomes easier to detect cascading effects—where damage to one attribute indirectly harms another (Pereira Rodgers, 2007). Thus, attribute listing transforms abstract heritage values into concrete, manageable features, ensuring that HIA is evidence-based and defensible. It also facilitates stakeholder

communication, as communities can easily recognize listed attributes and contribute local knowledge. In summary, attribute listing is not merely a checklist but a strategic framework for integrating heritage conservation into broader land-use and development planning (UNESCO, 2015).

2. Heritage Site: Punakha Dzong, Bhutan

Location: Punakha Valley, Bhutan

Significance: Second oldest and second largest dzong in Bhutan; winter capital of the central monastic body; historic coronation site of the first king.

List of Attributes includes:

1. **Utse (Central Tower)** – The imposing three-story tower housing sacred relics.
2. **Whitewashed stone walls** – Massive load-bearing walls made of rammed earth and stone, finished with lime plaster.
3. **Red and gold decorative band (Khemar)** – Painted geometric and floral motifs near the upper wall section.
4. **Wooden cantilever bridge** – Traditional covered bridge (Bazam) spanning the Mo Chhu River.
5. **Courtyard (Dochag)** – Large open space used for monastic assemblies and the annual Punakha Tshechu festival.
6. **Assembly Hall (Dukhang)** – Pillared hall containing thangkas and murals depicting Buddhist cosmology.
7. **Temple of the Queen of the Fairies (Machen Lhakhang)** – Shrine holding the preserved remains of Zhabdrung Ngawang Namgyal.
8. **Golden spires (Sertog)** – Gilded pinnacles atop the utse, symbolizing Buddhist enlightenment.
9. **River confluence setting** – Strategic location at the confluence of the Pho Chhu (male) and Mo Chhu (female) rivers.
10. **Annual Tshechu festival practices** – Intangible attribute involving masked dances and rituals performed in the courtyard.

Classification of Attributes

Category	Attributes
Architectural / Structural value	1, 2, 3, 4, 6, 8
Landscape value	5, 9
Artistic value	3, 6 & 8
Intangible / Religious value	7, 10

Explanation of How Attributes Convey Heritage Significance

The attributes of Punakha Dzong collectively convey the site's heritage significance as a living centre of Bhutanese identity, religion, and governance. Architecturally, the utse (1) and whitewashed stone walls (2) demonstrate traditional dzong construction techniques developed in the 17th century for defence and monastic function, reflecting Bhutan's architectural genius (Pommaret, 2009). The red and gold khemar band (3) and golden spires (8) express Buddhist iconography and royal patronage, signifying the sacred nature of the dzong. The wooden cantilever bridge (4), though rebuilt after floods, maintains the historic approach and defensive layout, linking the dzong to its landscape.

The river confluence setting (9) is not accidental—in Bhutanese cosmology, confluences are spiritually powerful sites believed to generate positive energy, and the dzong's position controls historical invasion routes from Tibet (Phuntsho, 2013). Inside, the Machen Lhakhang (7) houses the embalmed body of Zhabdrung, unifier of Bhutan, making the dzong a pilgrimage destination equal to its administrative role. The annual Tshechu (10) performed in the Dochag courtyard (5) revitalizes intangible heritage: masked dances transmit Buddhist teachings, while the congregation of communities reinforces social cohesion. Together, these attributes prove that Punakha Dzong is not a static ruin but a living heritage site where tangible fabric and intangible practices are inseparable (Daly, 2014). Any impact assessment must therefore consider both the physical durability of walls and spires and the continuity of rituals that animate the space.

References

Daly, P. (2014). *Heritage in living contexts: Intangible attributes and site management*. Routledge.

ICOMOS. (2011). *Guidance on Heritage Impact Assessments for cultural world heritage properties*. International Council on Monuments and Sites.

Phuntsho, K. (2013). *The history of Bhutan*. Random House India.

Pommaret, F. (2009). *Bhutan: Himalayan mountain kingdom* (5th ed.). Odyssey Books & Guides.