1. The CHIA ideal

The implementation of the Environmental Impact Assessment system in Hong Kong in 1997 was a critical juncture for cultural heritage management in both the territory and the wider Asian region. The decision to include culture as a component on a legal par with other environmental variables was visionary. Practice over the last decade plus has clearly shown the power of rigorous Cultural Heritage Impact Assessment (CHIA) as a tool for identifying, mapping and managing heritage in all its forms.

Cultural Heritage Impact Assessment can be defined as “the process of identifying, predicting, evaluating and communicating the probable effects of a current or proposed development policy or action on the cultural life, institutions and resources of communities, then integrating the findings and conclusions into the planning and decision making process, with a view to mitigating adverse impacts and enhancing positive outcomes.” [International Network for Cultural Diversity, 2004]

Broadly speaking everyone seems to agree in theory on the fundamental steps in the CHIA process. The shared approach to design and implementation of CHIA is based primarily on that of EIA as a whole, however, within this framework there is wide divergence in terms of rigor, standards and focus.

A CHIA is carried out when it is red flagged during the development process as a result of “screening”, a review of all project proposals to identify those which may have potential impacts on heritage. The nature and scale of the CHIA baseline study, including definition of the study area, requirements for the desk based study, field surveys and any additional data collection and the staffing and expertise needed for the CHIA team are identified as part of “scoping” and writing of the TOR.

The methodology used in CHIA is based on a comprehensive understanding of the current or baseline situation; the type, distribution and significance of heritage resources as revealed through Desk-based study and additional data acquisition, such as archaeological investigations, built heritage surveys, local interviews and recording of crafts, skills and intangible heritage. This is systematically integrated with information on the nature and extent of the proposed engineering and other works to identify potential sources of impacts on heritage.

Assessment is then made of each specific impact during the proposed works, for the lifetime of the development and during decommissioning and an overall assessment of the degree of resulting change.

Detailed proposals are put forward to mitigate where necessary with the aim of either maintaining the current status or improving it. Essential tools are designed to monitor the success of the proposed mitigation.

The strength of this process comes from the integration of spatial and distributional data, predictive methods, rigorous matrix methodology, and the consideration of multiple scenarios and solutions based on an understanding of the significance of heritage resources in relation to issues of “public good”.

2. The regional reality
CHIA generates an expanding database of known and newly discovered heritage resources and galvanizes public interest in heritage under threat. It is fair to say that in Hong Kong the growth of government commitment to heritage conservation, public awareness and education of heritage professionals are all closely linked to the introduction and visible implementation of CHIA.

The situation is different, however, in most of the Asian region, with heritage excluded from the national EIA process and not systematically assessed in the face of development. When heritage is included it is due to other initiatives such as local advocacy, World Heritage concern or the requirements set by international donor agencies.

A variety of creative applications have arisen to fill this gap carried out by individuals and bodies from different backgrounds and with conflicting agendas. It also informs regarding the current state of practice and the direction of future efforts. The range of creative applications includes:

- CHIA within an existing EIA system, based on consultant input adhering to strict guidelines and reporting requirements
- CHIA as a donor agency requirement, following relevant safeguard policies
- CHIA at request of World Heritage Center to address issues arising at UNESCO World Heritage sites
- CHIA of proposed or on-going heritage conservation projects
- CHIA of specific uses of heritage sites as venues, locales or backdrops
- CHIA as an NGO/private sector initiative in response to proposed urban and/rural redevelopment proposals
- CHIA to evaluate the sustainability of tourism at heritage places
- CHIA of Indigenous heritage resources, often intangible and relating to “spirit of place”

Looking at these adaptations of CHIA reveals a great deal about the potential of the methodology and how it can be further developed.

3. Available guidance

This development of varied approaches and methods of CHIA for different agendas has enriched the practice but resulted in methodological chaos and mixed standards of implementation and reporting. Guidance to help deal with this situation is increasingly available from within Asia and abroad and increasingly sophisticated.

Review of a sample of these documents illustrates the variety of scale and focus. The targeted users vary from site managers to consultant practitioners, government heritage authorities and funding banks. All state the importance of safeguarding heritage, or at least of tangible heritage, and urge the inclusion of cultural heritage into the formal EIA process. All are directly relevant to Asia and/or adaptable to regional situations. However, only a few actually provide hands-on or step-by-step guidance to practitioners on how to design and implement an assessment.
A Sample of Guidance and Standard-setting Documents:

**International Principles /Frameworks:**
- International Association for Impact Assessment Best Practice (IAIA), *Principles of Environmental Impact Assessment Best Practice* (1999)

**Guidance from International Donor Agencies /Banks:**

**Guidance for specific types of heritage:**
- Draft Guidelines for Aboriginal Heritage Impact Assessment , NSW National Parks and Wildlife Service
- Canadian Environmental Assessment Agency, Considering Aboriginal traditional knowledge in environmental assessments Interim Principles

**Guidance from countries where CHIA is part of the EIA process:**
- PLANARCH, *Guiding Principals for Cultural Heritage in Environmental Impact Assessment*

**Guidance for specific types of development:**
- Ireland National Roads Authority, *Guidelines for the Assessment of Architectural Heritage Impacts of National Road Schemes*
- World Commission on Dams, *Advisory Guidelines for SIA and Project Level Impact Assessment* dams and cultural heritage management
4. Points of divergence

Review of the principles and approaches outlined in the guidance literature reveals that there are some critical points of divergence and lack of clarity. A few of these points are highlighted here to illustrate just how discordant the various systems of CHIA really are.

(a) What Cultural Heritage is assessed?

There is inconsistency regarding what heritage can and should be assessed. Intangible heritage is not considered in the CHIA processes of international funding agencies and many national approaches. Discussion is often restricted to ways that intangible resources can be “used” for commercial purposes or in the restricted context of safeguarding the cultural heritage of indigenous peoples.

Some systems recommend that given constraints of time and money, assessment should focus on the most significant impact in order of priority; the problem with this approach is one of sequence where someone has to identify what are the “most significant impacts” before the impact assessment itself is carried out. This concept of “Critical Cultural Heritage” is dangerous as it implies that only high-profile, legally protected and well defined “used” resources need focused protection, when in fact, these are the least vulnerable.

One of the thorniest issues in CHIA is that of “potential” heritage. Resources which have legal protection and/or international recognition are guaranteed to receive attention, with other resources positioned along a diminishing scale of likelihood. At the bottom lie the vast undocumented areas of archaeological and heritage potential. Most frameworks provide no guidance on how to tackle predictive modeling, sampling or investigative survey and instead rely at best on “chance finds” procedures, emergency excavation or relocation, and at worst lead to loss of valuable places. This is a matter of particular urgency for countries in Asia where large tracts are unstudied and undocumented potential and contain untapped resources on an unknown scale.

(b) Who does what?

The lack of formal training in CHIA in the region has meant that we practitioners are essentially self-taught. We come from a wide variety of backgrounds including social and environmental science, archaeology, history and architectural conservation. The result is a multiplicity of approaches and standards and a tendency to focus on familiar heritage resources.

This is exacerbated by the mixed attitudes displayed by project proponents/agencies towards professional input into the CHIA process. Some apply strict vetting and listing of professional qualifications while others work on the underlying assumption that a CHIA will not be carried out by cultural heritage professionals at all. It is accepted that in the majority of cases it be carried out by someone who is appointed to handle the heritage issue. He/she will come from some other background, and will most likely be covering heritage on a part-time basis while still being responsible for their own discipline. Cultural heritage practitioners are consulted but not integrated into cultural heritage identification and safeguarding except in exceptional cases of Critical Cultural Heritage. As a result, there is a risk that poorly informed decisions at the early stages of the CHIA will negate later findings and compromise the effectiveness of the whole process.

(c) Sequencing of steps in the CHIA process
Review of guidelines and CHIA reports reveals confusion about which steps of the process need to be carried out before or after others. This is particularly a problem with archaeological sites where reconnaissance survey and preliminary site evaluation may be recommended at the scoping stage. Again, a limited reconnaissance survey and site evaluation before planning the baseline data collection phase may well be required, with the possibility of even further investigations at a later stage. Archaeological field evaluation is a pivotal part of the baseline study and further work may form part of the mitigation plan. Following this kind of schedule, therefore, a potential site could be “investigated” three or four times during a CHIA.

(d) The role of Community Consultation

The role played by community consultation varies widely in CHIA approaches. In some cases only passing reference is made to the need to seek stakeholder input, usually in identifying resources in an area. At the other extreme, some approaches state that no mitigation should be considered unless it has total stakeholder support, and that the best mitigation is that proposed by stakeholders.

The professional aim of a CHIA is to identify cultural heritage, assess potential impacts and mitigate them --- with a view to preserve and safeguard. This must be the main objective, not a desire to please all the people all the time. The concerned and affected community will have many diverse and irreconcilable priorities and will recommend mutually exclusive courses of action. It is the professional task of the CHIA practitioner to attempt to find an acceptable approach which will preserve heritage values, satisfy as much of the community as is feasible, be financially viable and practicable in conservation terms. And if at all possible, allow the proposed project to move forward.

(e) How are impacts identified and assessed?

It is noticeable that guidance documents regularly gloss over the section on implementation of the assessment of impacts. There may be a few hints, examples of simple matrices or an abstract flow chart but nothing to reliably guide the practitioner through the very complex and demanding tasks of identifying the potential sources of impacts, their nature and extent, how they will combine to act on existing conditions and how they will affect the significance of parts of heritage and the whole.

“Significance” of heritage resources is a fundamental part of this process and should be assessed and factored into the overall assessment of impacts being weighed carefully against predicted impacts and the proposed public benefit that will result from loss or compromise to the heritage. This is where training, experience and professional qualification come into play.

Mapping of location and distribution is a critical component of baseline data; it is so important but often not mentioned; similarly, the assessment of the condition of resources is rarely mentioned but, again, is a critical component.

Several CHIA methodologies base their assessment on Project type [pipeline, road works, mine, port development, sewerage, etc.] and provide Sectoral Guidelines. These describe the types of works associated with the project type and generalized impacts that will result. These can be useful to some extent, but a detailed understanding of engineering works is fundamental, as the distinction between different piling methods, backhoe blades and dredging methods is critical to assessing their impacts.

(f) Mitigation

Mitigation is essentially a set of proposals ranging from minor works to project abandonment designed to maintain the condition of heritage resources at existing levels or to improve them.
Mitigation proposals must include a monitoring plan to evaluate how affectively this is achieved and to ensure that the required mitigation measures really are implemented as laid out in the CHIA.

This requires the use of Indicators to illustrate the degree of change from existing conditions to during and post-project conditions. Few of the documents on the CHIA process reviewed here define the role of indicators, how they should be developed and used.

Removal of cultural heritage / relocation is only an absolute last resort option – and not to be used merely because project proponents say there are no technical or financial alternatives. In the same way, salvage archaeology is not universally acceptable mitigation / preservation by record. Standards frequently state firmly that heritage resources may not be significantly altered, damaged or removed but then immediately go on to elaborate on how to do just that, when a client claims that the need is “unavoidable”.

5. Training and professional needs

Clearly there is a need for development of a new sub-profession merging heritage management, planning, engineering, mapping and sampling. UNESCO’s experience has identified basic prerequisites for this process in the region. Firstly, training is needed across the region to produce skilled practitioners. The first step must be preparation of a CHIA Manual providing an understanding of the role and uses of CHIA; the skills, tools and confidence to design and implement them; and an understanding of how CHIA fits into the larger systems of project development, the international aid cycle and preservation efforts.

Such a Manual would serve as the principal text in courses designed to train CHIA professionals. The courses, designed by UNESCO, with input from ICCROM, academia, practicing CHIA professionals and implementing institutions will be offered through tertiary teaching institutions. The ideal conduit for this process will be the Asian Academy which already brings together all the academic departments and institutions in Asia which teach cultural heritage management. Successful completion of the course will result in “certification” of individuals as professional practitioners of CHIA. Training programs will generate a centralized Register of Certified CHIA Practitioners so that agencies, departments, corporations and others who need to carry out CHIA can be assured that whoever they employ is a fully qualified practitioner trained to UNESCO standards.

Because CHIA is integrated into larger strategic plans and development projects, there are players at a number of different levels. There are those who decide whether or not a proposed project needs a CHIA, those who write the scope and tender documents, specialists who actually implement the CHIA, reviewers who assess the CHIA and approve the project, and finally, those who implement and oversee mitigation measures. The Manual must address the needs of each of these players, drawing heavily on case studies from the region, successful and otherwise.

Training will provide guidance on the use of CHIA in various situations with specific requirements, including where sites of known heritage significance face issues such as development, encroachment, and tourism pressures; when potentially impact ing projects are proposed in areas with few or no known heritage resources, “blank patches” on the cultural heritage map; and retroactively, to evaluate past projects or events and to learn from them. A spin-off benefit from this regional program will be the creation of an on-line CHIA “Clearing House” where high standard CHIA reports, reference materials, industry discussion and productive debate can be centralized and easily accessed providing a knowledge base for informed decision making.

The process of preparing this Manual and designing relevant pedagogy will simultaneously improve existing standards by setting core data requirements, standardizing methods of impact assessment.
and broadening the range of creative mitigation options. Focus on reporting will lift the standard of outputs in the region. Standards must be based on experience and best practice adapted to the needs and circumstances of the region.