建筑和建筑构件状况评估

Condition Assessment of Architecture and Architectural Elements

古建筑状况评估 ARCHITECTURAL CONDITION ASSESSMENT

前言 Introduction

对殊像寺古建筑进行现状评估的目的是为了确定其建筑构件和装饰材料破损的类型、程度以及原因，归纳了现场考察及实验分析建筑构件的现状以及建筑材料的特征。对确定古建筑的哪些部位的哪些构件需要治理，治理的先后顺序，以及如何按照有关专业标准制定适宜的、有效的治理手段，汇编在这里的资料为以上工作提供了依据。对于这些必须治理的部位，还需要做进一步的调查研究，以确定最适当的材料和治理手段。在这里有必要提到，鉴于殊像寺彩画的历史年代，以及尚未对其使用材料和以前的保护工作进行大量专业研究，所以殊像寺现存的彩画应该给予特别的重视。为此，在完成有关建筑部分之后，我们另外编有一份**《油饰彩画、塑像、陈设物及器物状况评估**报告》，包括了所有有关彩画的信息资料以及殊像寺现存陈设物、器物及塑像的状况评估。

The purpose of the Architectural Condition Assessment is to determine the types, degree, and causes of deterioration present in materials used in the construction and decoration of architectural elements at Shuxiang Temple. This part of the report provides an overview of the condition of these elements, as well as an understanding of the materials themselves, as determined through observation and laboratory investigations. The information compiled here provides a basis for determining what materials at which locations are in need of treatment, prioritizing these needs, and determining how to proceed in identifying compatible and efficient treatments according to professional standards. All areas identified as requiring attention also call for further research to determine the most appropriate materials for and methods of treatment. It is necessary to note that the *caihua* still extant at Shuxiang Temple is worthy of special attention, given its apparent age and the fact that little formal research has been carried out on its materials and conservation in the past. For this reason, a separate *Condition Assessment of Painted Architectural Surfaces, Sculpture, Furnishings and Objects* follows this section and all related information is located therein. A condition assessment of furnishings and statuary present at Shuxiang Temple has also been included there.

为了掌握殊像寺古建筑的构件状况，我们在2004年春季到现场做了现状调查。历史文献及现场考察都表明，会乘殿和山门是该寺现存古建筑中保存最完整的，因此，调查的重点在会乘殿和山门。按照中国惯例，我们编制了现场调查表，按古建筑的各个重要构件（譬如，台基、槛墙、柱子等）和开间的先后次序做了现状评估记录，并把有关状况和位置的信息以表格形式记载，以便一目了然。表格（由项目工作队的两名队员填写）附在《建筑和建筑构件状况评估》的附件3中。此调查活动仅局限于肉眼观察，以表面、外观、可见的结构性及非结构性材料的变形为重点。现状调查之后，我们对会乘殿和山门的结构评估也做了一份报告，此报告已作为附件列入本文件。2005年春季我们对钟鼓楼进行了肉眼勘查并把有关的结果加进来，使本状况评估报告的内容更加完整。

In order to ascertain the condition of the various architectural elements of Shuxiang Temple, an in situ condition survey was undertaken in the spring of 2004. Careful attention was paid primarily to Huicheng Hall and Shanmen, as historic records and in situ inspection suggest they have the most historic integrity of extant structures. According to Chinese practice, survey forms were created to allow the condition survey to proceed by principal building part (i.e. platform, sill wall, columns, etc.) and then by bay. This allows for condition and location information to be easily recorded in tabular format. The completed forms (filled out by two members of the team) are included in Appendix 3 of the Architectural Condition Assessment. The survey was purely visual and focused on surface appearance and visible distortions in structural and non-structural materials. Following the condition survey, a structural assessment of Huicheng and Shanmen was

also conducted and is included in this report after the condition assessment text for each building. In the spring of 2005, visual condition surveys of the Bell and Drum Towers were carried out and integrated into this report.

2005年春季，我们对殊像寺的地面基址做了简要的调查，是殊像寺一般性档案调查记录的一部分。由于调查的重点是要绘制一张测量图，该图要与遗址平面图结合成为一大图。所以，对于攸关的状况仅仅记录了破损、缺失及错位最严重的构建。调查的结果见本报告所附的各个基址示意图。

A brief condition survey of the above-ground ruins at the site was conducted in Spring 2005 as part of the general documentation of Shuxiang Temple. As the focus of the survey was the creation of measured drawings to be integrated into the overall site plan, the information gathered relevant to condition is only meant to record the most egregious examples of deterioration, loss, and displacement of components of these ruins. The findings of the survey are included in this report graphically on sketches of each of the ruin sites.

会乘殿与山门的调查工作完成之后，我们编制了建筑材料破损状态图解词汇表，并以此来规范描述建筑材料中各种破损状态的专用术语。此词汇表已成为《建筑和建筑构件状况评估》中专用术语的基础，并列入本文件供参考（见本部分，附件1）。

Once the survey of Huicheng Hall and Shanmen was complete, a visual glossary of conditions was created to establish and define the terminology used to describe types of deterioration present in the architectural materials. This glossary has formed the basis for the language used in the Architectural Condition Assessment and is included within the report for reference (see Appendix 1 of this section).

对殊像寺其它建筑及构件的状况评估，主要是通过检视照片以及现场笔记进行的。因此，报告的这个部分以照片及其附加说明的形式来展示其现状。

Assessment of other architectural elements on the site was carried out largely through examination of photographs and review of notes taken in situ. As a result, this section of the report is organized as a conditions photo essay, relying on photographs accompanied by extended captions describing the conditions present.

殊像寺古建筑及工艺
Architecture and Techniques

殊像寺的建筑依山而建，与寺庙所在地的地形相结合。主要建筑均布置在中轴线上，形成前后四进院落，包括山门、天王殿（仅存基址)、会乘殿、宝相阁（重建）和清凉楼（仅存基址）。每座院落还有东西对称的建筑，如钟鼓楼或各类配殿。现存建筑为典型的清代皇家寺庙建筑。

除此之外，在寺庙后面靠西还有一处庭园（仅存基址），园中原有不同类型的传统的园林建筑。有关该组建筑布局与基址处理的相关资料，见卷一，《殊像寺简述》。

殊像寺内的建筑以其建筑构造划分，主要有以下几个部分：

The architecture within Shuxiang Temple is constructed along a hillside, integrated into the topography of the site. The principal structures are Shanmen (the gatehouse), Tianwang Hall (no longer extant), Huicheng Hall, Baoxiang Pavilion (reconstructed), and Qingliang Building (no longer extant). The layout is symmetric down the center with 4 separated courtyards, each courtyard having mirrored buildings on either side, e.g. the drum and bell towers and various “side buildings”. The extant buildings are typical and representative of Qing Dynasty imperial temple architecture.

In addition, an imperial garden area (no longer extant) originally composed of various traditional garden architecture was located on the west side, near the rear of the the temple complex. For further information on the building layout and the ruins, see Vol. I, *Description of Shuxiang Temple*.

The various architectural components present in the principal extant buildings are introduced below:

台基、基础及地面
Platform, foundation, and surface

建筑一般均在下部设台基，台基周圈红砂岩条石压面、陡板石或毛石台帮，在前后有门处设垂带踏步或礓磋。台基地面以下是柱子磉墩和夯实的回填土。墙体和磉墩下灰土铺筑夯实，并下地钉。柱子均立在柱顶石上。台基地面用规则条石或方砖铺墁。台基四周设有散水。

In general, the platform serves as the base of the structure. Beneath the red sandstone vertical sill course and horizontal coping is an ashlar or rubble masonry foundation, with openings in the front and back for stairs, stone splays, or ramps. Beneath the surface of the platform are column base supports and a rammed earth fill. Typically, under the walls and column supports is a prepared layer of lime and earth, and below that, wooden piles. The columns sit atop stone concave column bases. The surface of the platform is paved with regular copestones or flagstones. At each side of the platform, extending beyond the dripline of the eaves on the ground, is a border of small pebble-like stones that serves as drainage around each buildings.

大木构架及斗拱
Wooden frame and *dougong* (corbel brackets)

除宝相阁为攒尖顶外，其它均为硬山或歇山顶。构造均为抬梁式，柱上架多层横梁，梁上承檩垫枋，檩上承椽，柱间设水平的额枋（单层或两层）、穿插枋连接，角部用45度角梁，后尾交于金柱或下金檩与踩步金的交叉点处，翼角用翘椽飞。柱头额枋上施平板枋，上施斗拱，挑檐檩主要由柱头斗拱挑尖梁承托。

清代较大木构件采用包镶、拼装形式。会乘殿用包镶柱，外拼木条包裹圆形木芯，用多道铁箍。大额枋一般为2块或3块木料上下拼合，用铁箍束紧，而小额枋一般为整料。

会乘殿上下檐均施五踩斗拱，斗拱上为挑檐檩、枋，承椽飞，下檐为单翘单昂，上檐重昂。斗拱内部上托天花板，上部梁架被天花板遮挡。山门单拱交麻叶式斗拱，梁架露明造。钟鼓楼不施斗拱。

檐椽、花架椽、脑椽均圆形，飞椽方形无卷杀。

Except for Baoxiang Pavilion, whose structure culminates in one point, the other buildings make use of gable walls. The constructed components support the system of beams: the columns support the frame of multiple levels of beams, the beams support the purlins and cushion boards, on the purlins rest the rafters; in between the columns are one or two levels of architraves, linking the transversal eave architraves. The corners use a corner beam set at a 45 degree angle. Behind, the rest of the components meet with the hypostyle columns while the principal rafters meet with the gable beam at a forked point. Flying rafters extend outward at an angle. On the column heads and architraves are flat tie beams, above which are corbel brackets (*dougong*). Integral in supporting the purlins are the column beam heads and bracket systems, which hold up the rest of the upper beam supports.

Qing Dynasty wooden components are often composite, pieced together or clad with smaller pieces of wood. Huicheng Hall uses composite columns, the exterior formed of strips that surround an inner core and iron hoops as fasteners. The greater architraves, in general, use two or three pieces stacked together, with surrounding iron hoops. The lesser architraves are usually composed of one single member.

Huicheng Hall upper and lower eaves have a five-tiered bracket system. The brackets are supported by the purlins and architraves, and they themselves support the flying rafters. The interior part of the brackets support the ceiling boards, which hide the beams above. Shanmen has a three-tiered bracket system, with the roof framing visible. The Bell and Drum towers do not use brackets.

Eave rafters, ceiling rafters, and “brain” rafters are all round; flying rafters are square.

屋面
Roof

会乘殿为重檐黄琉璃瓦歇山顶，宝相阁重檐攒尖顶，绿琉璃瓦屋面施黄琉璃瓦剪边；山门单檐歇山布瓦顶；钟鼓楼均为重檐歇山布瓦顶。

屋顶一般在望板上施护板灰、掺灰泥和大麻刀灰，上施琉璃瓦或布瓦。重檐顶均用围脊、合角吻，歇山顶部分正脊两端正吻，设垂脊、戗脊，端部有垂兽、戗兽及跑兽。

会乘殿勾头、滴水均雕有龙的图案，勾头上施帽钉。山面铃铛排山，琉璃博缝并缦带连环琉璃山花。

Huicheng Hall has a double eave hip and gable roof with yellow glazed tiles. Baoxiang Pavilion has double eaves and a roof that rises to a central point with glazed green roof tiles and glazed yellow edging tiles. The hip and gable single eave roof of Shanmen has unglazed grey roofing tiles. The Bell and Drum Towers both have double eave hip and gable roofs with grey unglazed roofing tiles.

Generally speaking, the roofing boards are covered with a protective coating of lime, upon which a coating of mortar and hemp are applied. The glazed tiles or unglazed grey tiles are placed on top of this. All double eave roofs have an edge ridge and ornaments: at the peak of the gable and roof ridge end, on either side, is an animal finial. There is a gable ridge and hip ridge, with ornaments.

墙体及门窗
Walls and Openings

山墙、檐墙下碱一般陡板石或毛石，条石腰线。上身墙体大停泥砖或毛石坐白灰砂浆糙砌，内外抹灰。山门明间设石刻券门，施实榻板门，次间石刻盲窗。钟鼓楼当中石刻券门、木板门，上层柱间施木栈板。

会乘殿、宝相阁檐部格扇门或槛墙格扇窗装修，宝相阁用红松制作(根据最近的重建报告)。会乘殿前后檐明间、次间为六抹格扇，格扇芯屉和横披窗为六角菱花图案。

The gable wall and the lower section under the eave are made of vertical ashlar or rubble masonry with ashlar stringers. The upper half of the walls is made from large clay bricks (*tingnizhuan*) or rubble with white lime and sand mortar as the binding medium; inside and outside surfaces of the wall have a plaster or stucco render. In the central bay of Shanmen there is an arched gateway with double closing doors. In the bays next to the central bay are arched windows with lattice work. Both the Bell and Drum Towers have central arched stone door surrounds and wooden doors in the middle bay of the main facade; the walls on the second level are made from wooden paneling.

Huicheng Hall and Baoxiang Pavilion have wooden latticework doors and windows. In Baoxiang, these are made from Red Pine, according to recent reconstruction records. In Huicheng Hall, the central bays and the adjacent bays in both the front and back facades have five lattice doors with the *liujiaolinghua* (six-sided water caltrop) lattice pattern.

油饰和彩绘
Painted Decoration

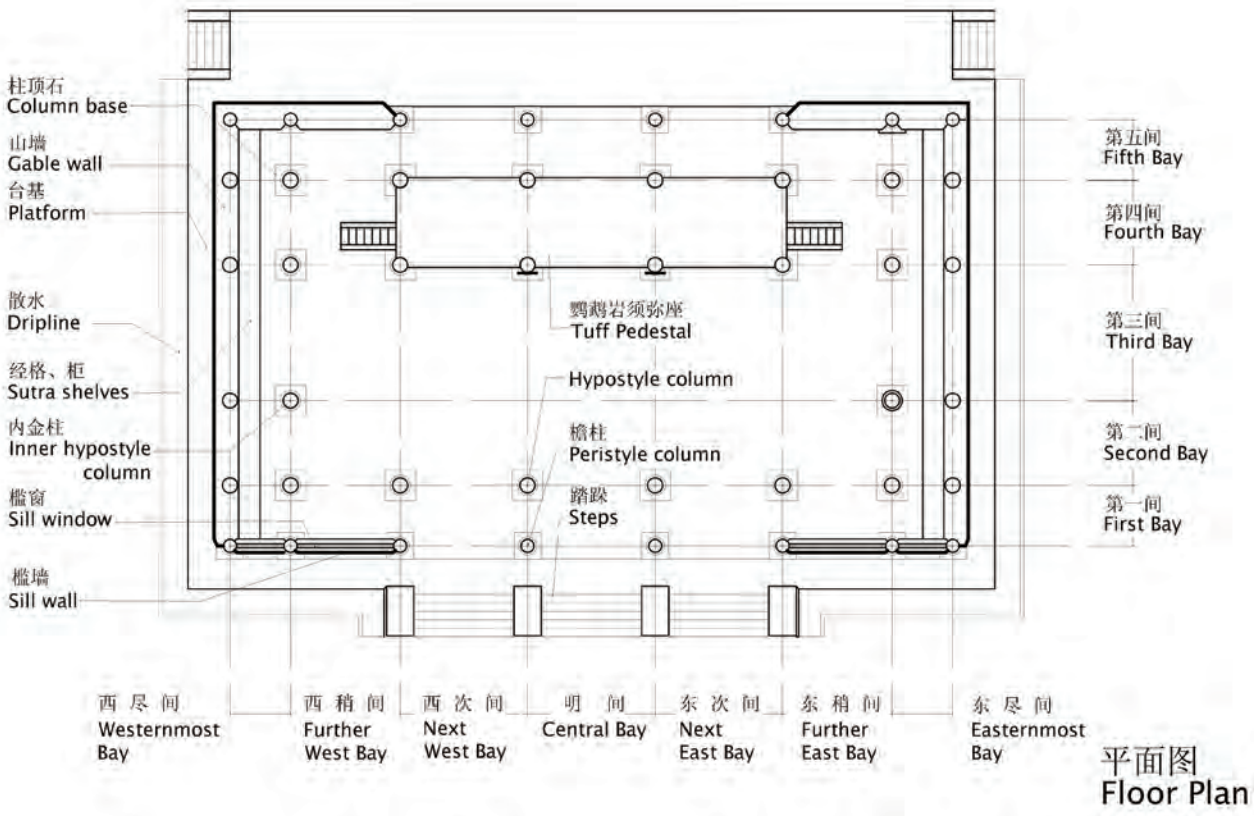
除了僧房外现存建筑下架大木一般施地仗，红色油饰；其中除鼓楼外均残留有彩画，会乘殿上架内外大木梁上是金龙和玺彩画，山门为金线大点金旋子彩画（具体关于彩画的叙述见《**油饰彩画、塑像、陈设物及器物状况评估报告**》）。

Aside from the monks' quarters, the extant buildings have a lower wooden structural framework coated with a red painted mud and hemp plaster (*youshi*). Aside from the Drum Tower, all the buildings have some remnant of *caihua*. Huicheng Hall has the golden dragon and imperial seal pattern (*jinlonghexi*) on its interior and exterior beams; the pattern in Shanmen is composed of a simpler geometric floral motif. (For more details relating to the *caihua* please refer to the *Condition Assessment of Painted Architectural Surfaces, Sculpture, Furnishings and Objects* later in this volume.)

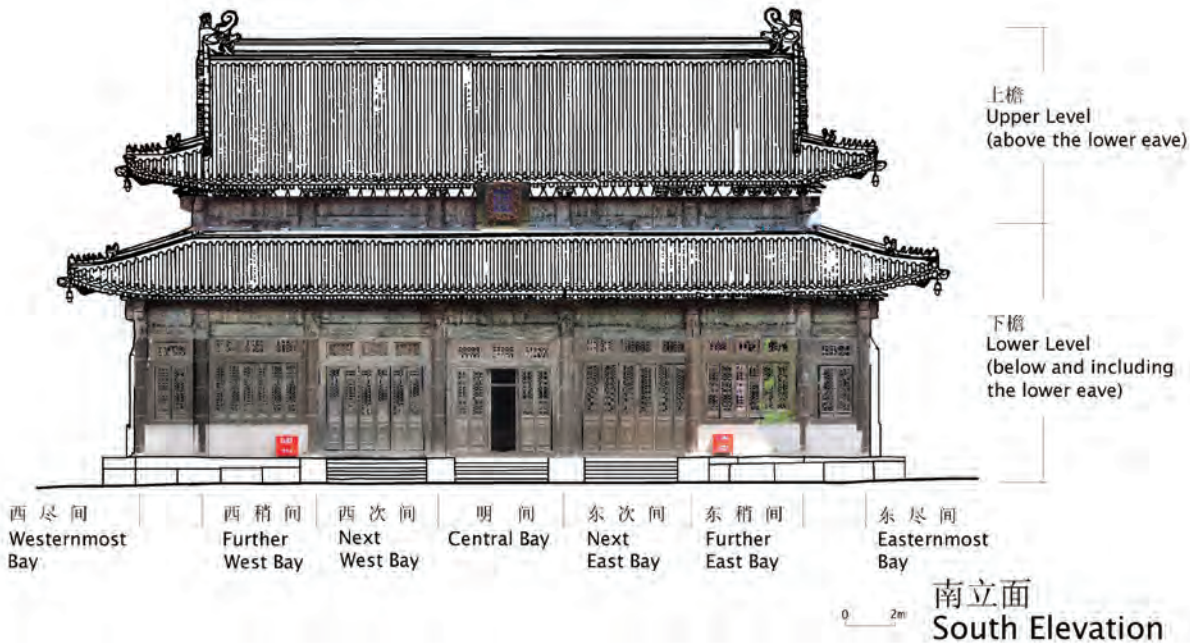
示意图
Diagrams

殊像寺示意图将线图与照片重叠，并用中英文标出主要建筑单位和建筑构件的名称。

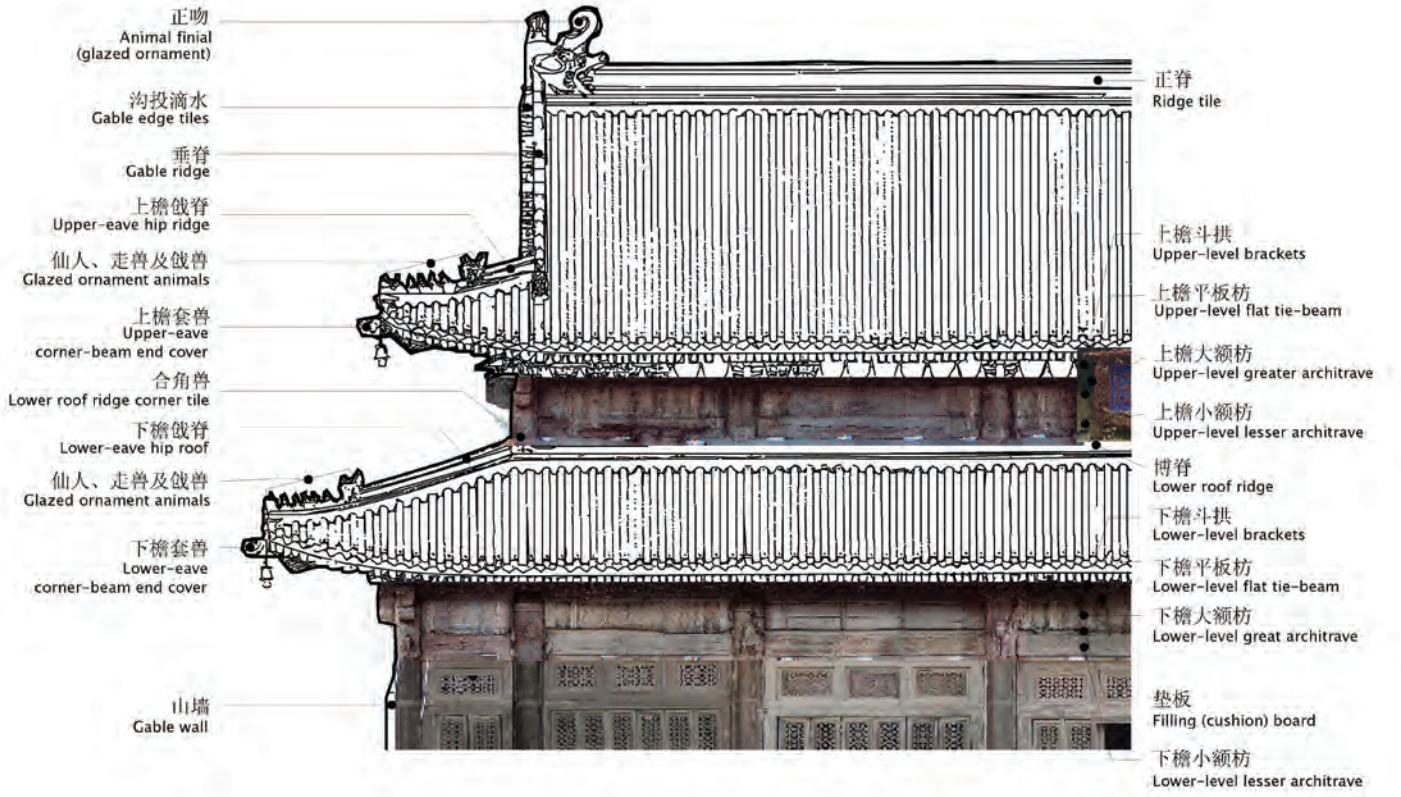
The following pages have schematic drawings of Huicheng Hall with overlaid photographs and labels indicating Chinese and English naming of principal structural members, decorative elements, and units of reference.



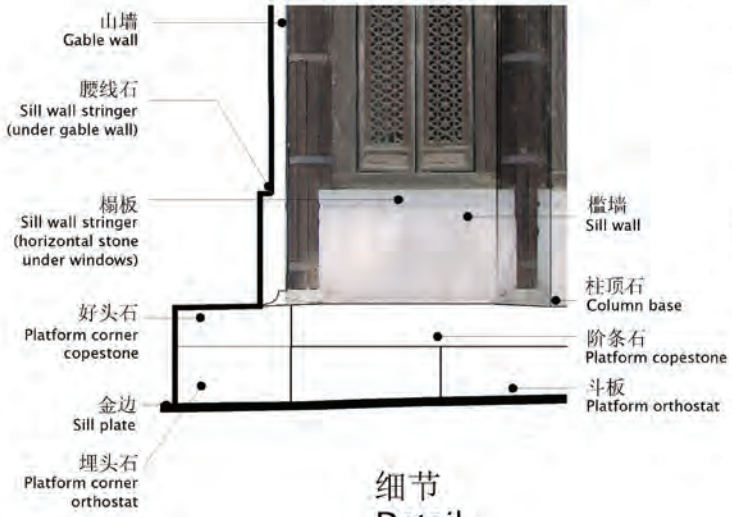
平面图
Floor Plan



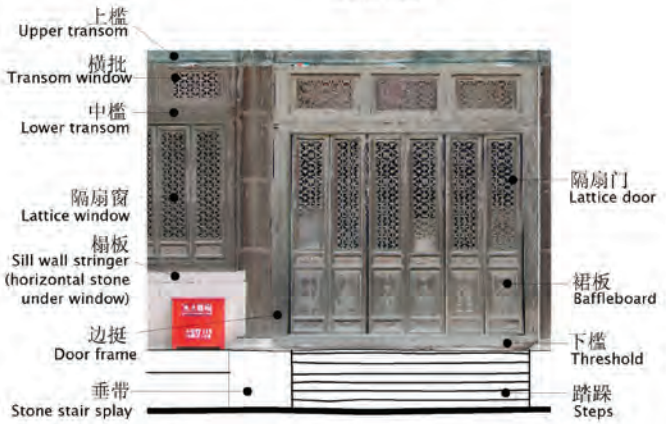
南立面
South Elevation



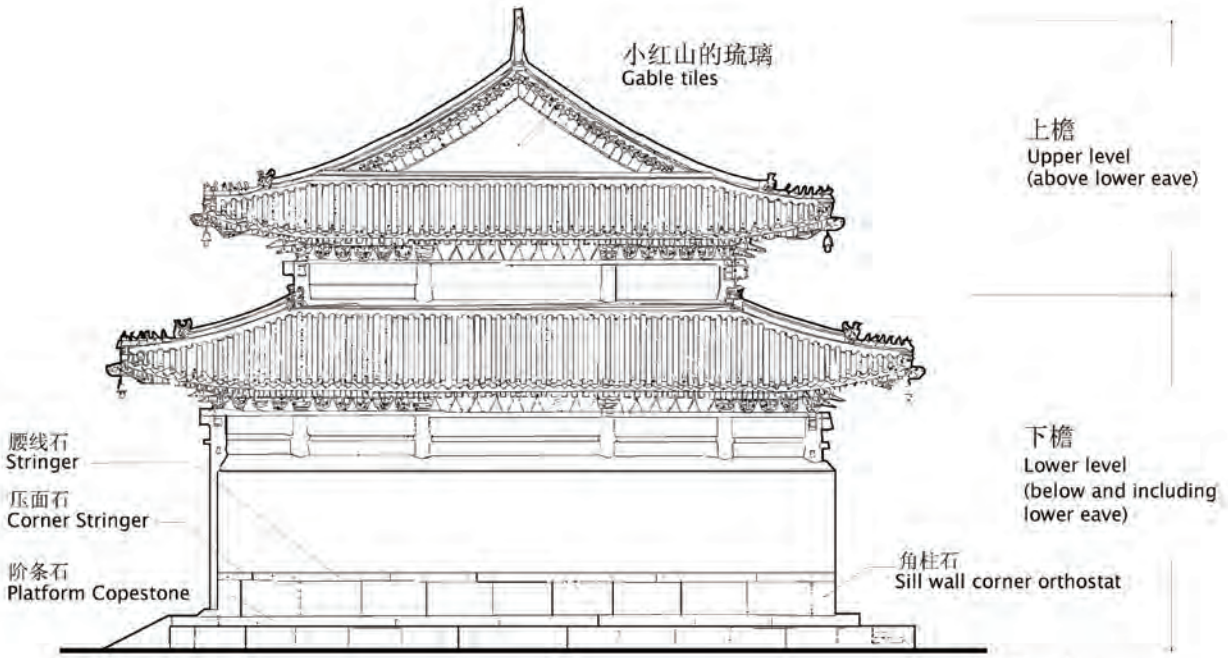
南立面细节
South Elevation Detail
无比例
not to scale



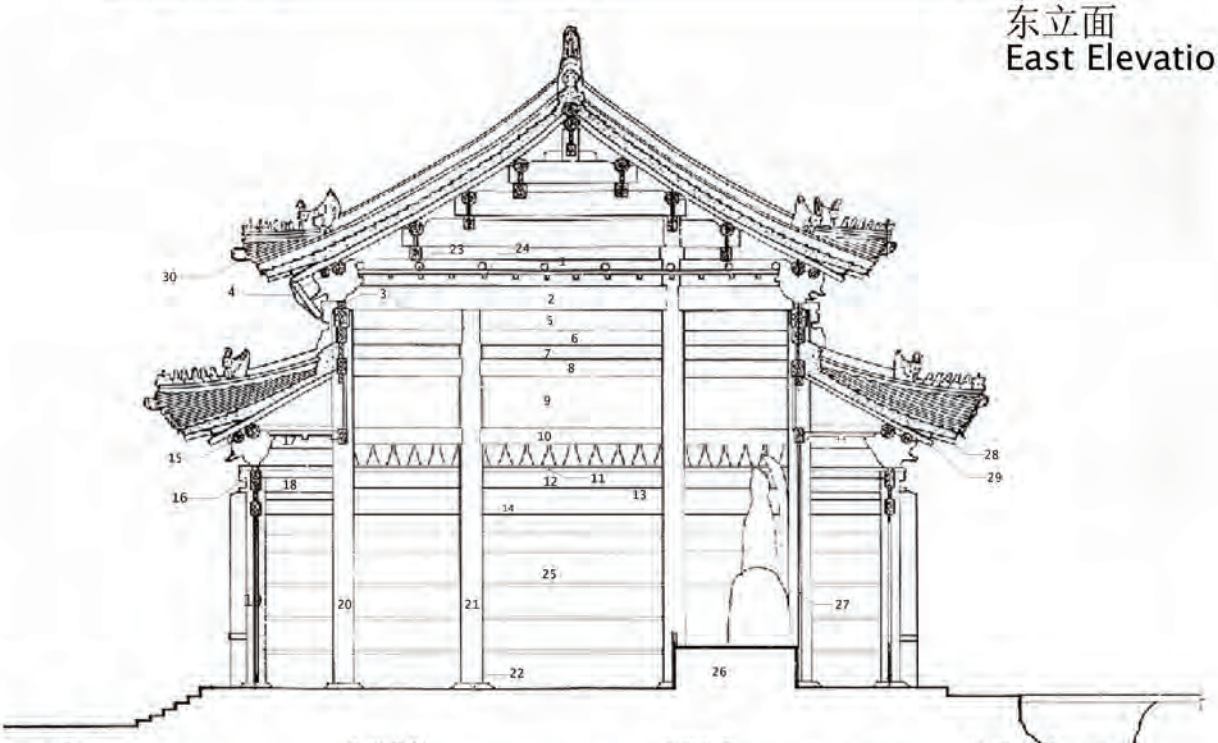
细节
Detail
无比例
not to scale



细节
Detail
无比例
not to scale



东立面
East Elevation



1. 梁
Beam
2. 随梁枋
Transversal tie-beam
3. 上檐平板枋
Upper-level flat tie-beam
4. 上檐挑檐檩
Upper-level eave purlin
5. 上檐大额枋
Upper-level great architrave
6. 上檐小额枋
Upper-level lesser architrave
7. 垫板
Filling(cushion) board
8. 下檐博脊枋（承椽枋）
Lower roof ridge tie-beam
9. 走马板
Wall panel above columns
10. 跨空枋
Interior architrave
11. 下檐平板枋
Lower-level flat tie-beam
12. 下檐大额枋
Lower-level greater architrave
13. 下檐垫板
Lower-level filling (cushion) board between architraves
14. 下檐小额枋
Lower-level lesser architrave
15. 挑檐檩
Lower-level eave purlin
16. 霸王拳
Ba-Wang-Quan, End of the greater architrave
17. 抱头梁
Transversal eave beam
18. 穿插枋
Transversal eave architrave
19. 檐柱
Peristyle column
20. 金柱
Hypostyle columns
21. 内金柱
Inner hypostyle columns
22. 柱顶石
Column base
23. 井口枋
Ceiling batten
24. 天花板
Ceiling board
25. 藏经柜
Sutra shelves
26. 佛台
Main altar
27. 照壁
Altar partition wall
28. 飞椽
Flying rafter
29. 椽
Rafter
30. 角梁
Corner beam

剖面图
Cross-section

建筑材料
Building Materials

殊像寺使用的建筑材料包括石材、木材、砖瓦、灰（泥）浆、抹灰材料、油饰彩绘材料和金属等。虽然本节评估的重点主要放在会乘殿和山门结构或装饰所用的材料上，但是对寺内的其它建筑材料也一并进行了简要的介绍（不包括彩画所用材料，见〈彩画评估〉）。有些材料已经进行过化验分析，为使我们对该建筑材料及其性能有所了解，本报告也引用有关的分析结果。

The building materials employed at Shuxiang Temple comprise stone, wood, fired brick, mortars, plasters, paint, and metal. While this architectural condition assessment focuses largely on the materials used as structural and decorative components of Huicheng Hall and Shanmen, a brief overview of all materials (except those used in *caihua*, which are presented later in this volume) is included here to provide a basic description. Certain materials have been analyzed and, where applicable, the results are briefly presented to provide an understanding of the materials and their characteristics.

石料
Stone

殊像寺的建筑使用了四种不同的石料，它们分别用在建筑的专门或多处地方：

红砂岩：使用范围很广，如寺内墁地、建筑台基、槛墙和下碱。

粗粒灰砂岩：大量使用于墁地；

鹦鹉岩：用于雕饰构件，如栏杆、佛像底座、（山门）门窗、石狮，同时还用于台基和槛墙、下碱墙。

绿白色砂岩：用于槛墙、下碱及台阶，一般认为是后期替换、添加的材料。

Four types of stone are found at Shuxiang Temple, each falling into one or more general categories of use, as follows:

- red sandstone - used throughout the site in paving, architectural platforms, and sill walls
- coarse-grain green sandstone - used for crazy paving
- light grey volcanic tuff (*yingwuyan*) - used often for carved ornamental features (e.g. balustrades, statue bases, window and door surrounds, lion statues) and also in platforms and sill walls
- whitish-green sandstone - used in sill walls and steps, thought to be a material of later interventions

这些不同石质的石料遍布整个遗址，其保存状况不同，如附件1和卷一，《古建筑状况评估摘要及建议》所示。混合石料也以虎皮墙的形式用在台帮、建筑下碱墙和院落围墙上。

These varieties of stone are distributed throughout the site and manifest a wide range of conditions, as presented in Appendix 1 and in Vol. 1, *Summary of Architectural Conditions and Recommendations*. A mixture of the stones is also used in the rubble (“tiger skin”) masonry around the site in platforms, building enclosure walls, and perimeter walls.

附件2中有岩石种类特性的简单描述。在项目的分析报告文件夹中有较为详细的描述。

Characterization of stones types is described briefly in Appendix 2 and in further detail in the Analytical Binder for the project.

寺内大量使用当地产的鹦鹉岩，该岩的物理性能和破坏形式的表现与其它三种砂岩不同。

即使是鹦鹉岩本身也有很大差异，可能与它们在采石场所处的深度不同有关，大体可以归结到两类：

浅灰色细粒鹦鹉岩：来自采石场较深地方；

浅灰并略带紫色鹦鹉岩：有大量火山岩包容物，来自采石场的较浅层。

实验室研究表明这两类鹦鹉岩样品在物理性质，包括孔隙率、水饱和度及弹性性能方面差别很大。两类样品的不同性能，说明有些鹦鹉岩能够抵抗冻融变化，而有些则不能（见附件2，《承德凝灰岩：物理性质与抗冻融试验》）。在对冻融变化敏感的一些石块上出现了裂隙，并逐渐发展成龟裂。这个现象可在许多出土的石构件上看到。

The local tuff (*yingwuyan*) is used throughout the site and exhibits different physical characteristics and modes of deterioration from the other three varieties of sandstone used. The stone itself varies markedly and can be roughly categorized into 2 groups, seemingly related to the depth of the stone's provenance within the quarry:

- light grey fine-grained tuff, from deeper within the quarry
- light purplish-grey tuff with large volcanic inclusions, from lesser depth

Laboratory investigations show distinct physical properties exist between the two tuff samples, related to porosity, water saturation, and elasticity of the stone. These varying profiles of different tuff samples suggest that some of the stone is resistant to freeze-thaw, while some is markedly susceptible (See Appendix 2, *Chengde Tuff: Physical Characterization and Freeze-Thaw Resistance Testing*). Susceptibility to freeze-thaw in certain blocks results in widespread propagation of cracks and eventual fissuring of the stone, as can be seen in many of the excavated tuff elements.

木材
Wood

木材是殊像寺最主要的建筑材料之一，用于建筑的柱子和梁架。为了确定木材的树种及其残损特征，在实验室对有限的样品进行了分析，这些样品均采自会乘殿。化验结果表明，柱子的外层包镶木条是云杉(*Picea*)，而不是以前所认为的松木(*Pinus*)。值得注意的是，由于未对柱芯和其它木构件作取样分析，因而这些构件可能是松木做的。对于承重构件的特点以及对它们潜在威胁的了解，还需要做进一步的取样分析。

Wood is the primary structural material of Shuxiang Temple, used for the post and lintel frames of the buildings. Laboratory investigations to identify the wood species and characterize its deterioration have been carried out on only a few select samples, all from Huicheng Hall. These analyses resulted in identifying the wooden column cladding as spruce (Picea), not pine (Pinus), as originally thought. However, it must be noted that samples of the column cores or other structural members were not taken and may indeed be pine. This question bears further sampling and analysis to understand the characteristics of and potential threats to the load-bearing wood members.

通过扫描电镜对包镶木条的调查还发现了普遍存在的褐色糟朽。在受损较严重的地方，糟朽部分至少有3厘米深，在受损较轻的地方，糟朽则仅出现在外表（厚约1毫米）（见附件2）。

SEM investigation of the wood cladding has shown evidence of widespread brown rot in the wood, present to at least 3cm deep in highly eroded areas and isolated to the surface (about 1mm deep) in other less deteriorated areas (See Appendix 2).

地仗、抹灰**Plaster/Stucco**

目前所见的三种历史性的抹灰：室外砖石建筑上抹灰、室外与室内木材表面油饰彩画的地仗、室内砖石墙上装饰画的抹灰。

Three categories of historic renders are present on-site: exterior stuccos on masonry, exterior and interior painted plasters on wood, and interior decorative plasters on masonry walls.

室外与室内木梁表面油饰彩画地仗的材料组成和特点，见卷二《**油饰彩画、塑像、陈设物及器物状况评估报告**》。

The composition and characteristics of the plaster used as a preparatory layer for interior and exterior decorative paint on wood beams (*caihua*) is presented in the latter half of this volume.

现存大部份的历史建筑（山门、钟鼓楼、会乘殿、已毁建筑）和围墙上都有红色抹灰。抹灰一般在墙体上身砌砖石的外表使用。根据采自会乘殿一份样品的分析，灰层分两层：黏土、石英组成的粗糙底层，石灰、砖灰、白云石质石灰石骨料和纤维组成的表层。传统方法是将富铁颜料如赤铁矿和红土混合加到抹灰层中形成红色，但试验分析还未完全证明这种做法。尚未对后期进行干预所用的抹灰进行分析，所以无法说明其成分是否有所不同。（见附件二有关抹灰试验的内容）。

Red decorative stucco is present on most of the extant historic structures (Shanmen, Drum and Bell Towers, Huicheng Hall, some ruined buildings) and the perimeter wall. The stucco usually covers the brick or stone rubble masonry atop the stone sill wall and, based on analysis of one sample from Huicheng Hall, is composed of a coarse layer of clay and quartz and an upper layer of lime with brick dust, dolomitic limestone aggregate, and fibers. Traditionally, the red color was achieved through use of an iron-rich pigment, e.g. hematite, and a reddish clay mixed into the stucco, but these have yet to be conclusively identified in analytical investigations. No analysis has been conducted on later stucco interventions to determine differences in composition. (See Appendix 2 for characterization of stucco.)

室内抹灰包括：柱子上红色油饰的地仗，会乘殿照壁上比较厚与多层的红色抹灰，会乘殿与山门都有的砖石墙上装饰画的抹灰。目前仅对会乘殿照壁上的抹灰进行过分析并且检验出朱砂与铅丹两种颜料。

Interior plasters include the following: red-colored plaster on columns; a thicker, multi-layered reddish plaster on the partition wall in Huicheng Hall; and polychrome painted plaster on masonry walls, as found in Huicheng Hall and Shanmen. Analysis has only been carried out on the partition wall plaster found in Huicheng Hall and resulted in the identification of both vermilion and red lead pigments.

砖和毛石墙体
Brick/Rubble Masonry

大部分现存历史建筑墙体上身一般都用青砖或毛石砌筑。我们没有对青砖、灰浆进行实验分析。但是对灰浆进行分析或许必要，因为以后假如需要对墙体重新勾缝时必须了解原灰浆的性质才能制造相容的修复灰浆。

Grey bricks or stone rubble are used in masonry walls that sit atop sill walls in most of the extant historic structures. Neither the bricks nor the mortar have been subjected to analytical investigations. However, analysis of mortar may be required should repointing of both rubble and brick masonry be carried out on-site, in order to determine the properties of original mortars and fabricate a compatible repair material.

金属
Metal

殊像寺主要用铁和铜两种金属。生铁或铁件用在结构性的构件上，如柱子和额枋上的铁箍；槛墙和下碱墙灰缝内的铁垫片，通过铁片来增加砌石的稳定性。更多的装饰性金属附件是一种或多种铜合金，如门窗上的面页和窗框上的钉子。我们对会乘殿南立面西尽间窗框上一个铜合金钉子进行了分析，发现它是较新制作的黄铜制品，没有铜锈但是含镍，由此也可以肯定我们的观察结果：菱花条是后补的。

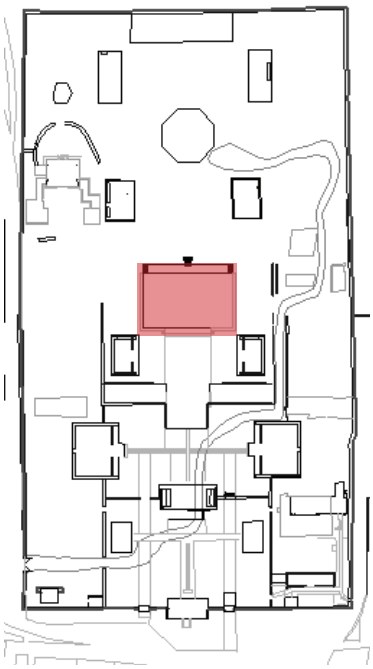
Two categories of metal are prevalent at Shuxiang Temple: cuprous and ferrous. Iron or steel is used with the structural members, such as the hoops that encircle columns and architraves and the iron shims intended to enhance masonry stability as they rust and expand in the mortar of the sill wall. More decorative metallic accessories, such as the door and window fittings and window frame nails, are one or more types of copper alloy. Analysis has only been conducted on one of the copper alloy nails from a window frame on the west end of the south facade of Huicheng Hall and showed that the nail was a brass of relatively recent origin, given the lack of patina and the presence of nickel, a result that conforms with the observation that much of the lattice is modern.

瓦和脊饰
Roof Tiles and Glazed Decorative Elements

殊像寺内建筑的屋顶根据其建筑等级分别采用琉璃瓦、脊饰或是简单的布瓦。主殿会乘殿采用黄色琉璃瓦与脊饰；宝相阁同时采用黄色和绿色琉璃瓦与脊饰。较次要的建筑如山门、钟鼓楼用普通的布瓦。我们未对瓦件和脊饰进行过实验分析，但是应该注意许多瓦件和吻兽都是后期更换的。目前仍然很难判断哪些是原有瓦件或至少是清代更换的瓦件。

Shuxiang Temple's eaves and roofs are covered in either glazed tiles and ornamental animals or simple, unglazed grey tiles, dependent upon the status of the building. Main halls enshrining important deities are covered in glazed tiles of yellow (Huicheng Hall) or yellow and green (Baoxiang Pavilion) with glazed ornaments, while lesser building, such as Shanmen and the Bell and Drum towers, have simple unglazed grey tiles. No analysis has been carried out on glazed or unglazed roof elements, though it should be noted that many of the tiles and animals date from recent interventions and it is difficult to determine which, if any, are original or at least date from the Qing Dynasty.

会乘殿，南立面
Huicheng Hall, S Facade



殊像寺，平面图
Shuxiang Temple site plan

会乘殿：
状况评估

通过现场检查以及系统的、由下而上的调查，我们查明了会乘殿的建筑构件的状况。本文包括了调查简述以及具有代表性的建筑状况照片（经过挑选）。文后的附件包括修订后的现场状况评估和建筑结构评估。

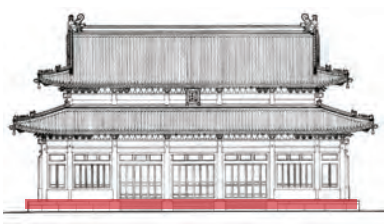
Huicheng Hall:
Condition Assessment

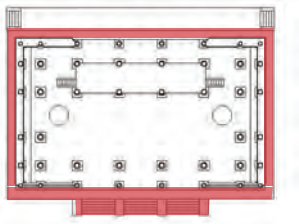
Ascertaining the physical condition of the architectural elements was accomplished through in situ inspection and a systematic survey of the building from the ground up. A summary of the condition is included here, accompanied by a selection of images representative of certain conditions. The actual survey tables completed in the field and later refined are included in an appendix at the end of this section. A structural assessment of the building is included immediately after this condition summary.

会乘殿，东立面
Huicheng Hall, E Facade

会乘殿，北立面
Huicheng Hall, N Facade

台基
Platform





会乘殿的台基是由一层直立（陡板）的红砂岩，一层水平（阶条）的红砂岩（或青砂岩与鹦鹉岩）的压面石组成的。柱顶石为鹦鹉岩。即使是由同类的鹦鹉岩组成的，但是石材的颜色与外观显著不同，特别是表面的材料由于片状剥落、侵蚀流失之后。台基东、西两侧的青砂岩可能不是原始的建筑材料，一般认为这种石材是后来进行干预活动所用的典型材料。

The platform of Huicheng Hall is composed of a base course of red sandstone, set vertically, and a top horizontal course of red or whitish-green sandstone or local tuff (*yingwuyan*) copestones. Column bases are made of *yingwuyan*. Stone color and appearance, even within like species, can vary markedly, particularly when surface material has been lost through scaling/flaking or erosion and surface loss. The presence of the whitish-green sandstone in the western and eastern portions of the platform seems to suggest that these stones were not original to the structure, as this type of stone was typical of later interventions.

会乘殿，台基北侧踏步
石头边角厚层缺失

Huicheng Hall, N Platform step
Partial loss of sandstone, with erosion

台基基本没有下陷或移动的迹象，作为一个整体，其结构是完好的。只有在东面可以看到个别块石的明显位移，有一个移动了5厘米。西面发生移位情况较少。这些块石的表面都有一些局部的情况，其中一些情况在长时间后可能会影响它们的强度。

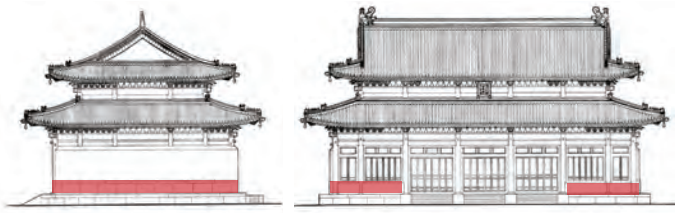
The platform manifests little evidence of subsidence or movement and is, as a unit, structurally sound. However, displacement of a few individual ashlars is visible on the E facade, up to 5cm in one case, and to a lesser degree on the W facade. The ashlars themselves demonstrate a number of localized surface conditions, some of which may, over time, eventually undermine their strength.

在整个台基上重复出现的问题是石材表面的片状剥落、部分缺失、污斑与表面沉积。在北面与东面可以看到由盐分腐蚀造成的表面缺失。柱顶石有裂缝、表面沉积以及部分剥落。在南面石阶旁边的陡板石有严重的片状剥落。台基四周大概缺失了15平方米的散水，有3平方米的散水被水泥覆盖住。小区域的生物活动造成的污斑或表面沉积已经扩散，特别是在台基的底部。

The most recurrent conditions throughout the platform are: scaling and flaking of the stone surface, partial loss, staining and surface deposits. Salt-fretting and resulting surface loss are evident along the N and E facades. Column bases exhibit cracking, surface deposits, and partial loss. Severe scaling is present on the S facade panels that run alongside the steps. The drip-line running around the platform has lost approximately 15m^2 of its stone paving and another 3m^2 is covered by cement. Small areas of biological activity resulting in staining and/or surface deposits are spread throughout, particularly at the base of the platform.

会乘殿，西立面，台基
Huicheng Hall, W Facade, platform

槛墙及下碱墙
Sill Wall



会乘殿的槛墙及下碱墙是由鹦鹉岩石材垒砌的。第一层立石铺的是大块的鹦鹉岩方石，第二层榻板石是水平的鹦鹉岩方石。由于鹦鹉岩包含的火山物质的位置与大小各不相同，因此石块的颜色与外形也有明显的不同。这可能和石头的来源不同有关（在同一采石场的位置或深度不同，或者来自不同的采石场）。

The sill wall is composed of *yingwuyan*, the local grey tuff, laid as a first course of large vertical ashlars with a second course of horizontally laid ashlar coping. Orientation and size of volcanic inclusions in the stone varies throughout and color and appearance can be markedly distinct between blocks, suggesting a slightly different provenance of the stone (i.e. different depth or location within the quarry, or even possibly different quarries).

会乘殿，北槛墙， 内部，盐霜
Huicheng Hall, N Sill wall, Interior Efflorescence

会乘殿，北立面，槛墙， 盐霜
Huicheng Hall, N Facade, sill wall Efflorescence

在石块之间的灰缝中常常可以看到生锈的铁质隔离物。由于铁片生锈后体积膨胀，压力增大，传统上用作加强墙体稳定性的填充物。在立石水平面暴露的边缘上可以看到石料加工的凿琢痕迹，或许是为固定灰缝粘结材料的。

Often visible within the mortar between stones are rusted iron spacers, traditionally used as fillers to enhance stability of the wall through increased pressure from progressing rust. Tooling of the stone surface is evident at the exposed edge of the horizontal surface of the vertical stones, perhaps as keying for mortar.

槛墙及下碱墙多因墙基的腐蚀、污斑和表面沉积（漆滴、鸟粪）而受到损伤。各面墙上的垂直接缝常有开裂，导致水气进入建筑中。在北面墙上有严重的盐分腐蚀并造成了的表面缺失，但南墙的情形相对要好一些。在南、西两面墙上有许多平行的细微裂缝。建筑周围有几处小地方用水泥进行了修补。石头的边或角上常有局部性的小缺失，但不是主要的问题。

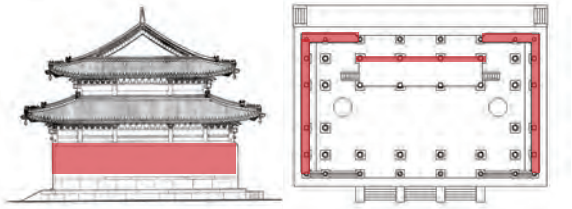
The sill wall suffers predominantly from basal erosion, staining, and surface deposits (e.g. paint, bird droppings). Vertical joints are frequently open on all facades, allowing for the entrance of moisture into the building fabric. Salt-fretting and resulting surface loss is widespread on the N facade, and present to a far lesser degree on the exterior S wall. S and W facades have areas of parallel hairline crack propagation. Cement interventions are also present in small areas around the building. Localized partial loss, usually at corners or edges of stone blocks, is also present, but not a major concern.

下碱墙内部的表面大部分被藏经柜挡住了。 不过在北墙可以看到的地方发现了严重的盐霜，这与墙外受盐害的情形相吻合。

The interior surface of the sill wall is largely occluded by built-in wooden sutra shelves. However, the visible N wall has extensive efflorescence, apparently matching exterior areas of salt-related damage.

会乘殿，西立面，槛墙 Huicheng Hall, W Facade, sill wall

砖作与抹灰\地仗
Brick Masonry Walls, Stucco and Plaster



北面墙两端及东西山墙槛墙上部的砖为灰色，勾缝可能使用了石灰砂浆（还未分析）。西墙抹灰的大面积脱落，容许我们对露出的砖作做了有限度的检查。砖作状况良好，仅有个别砖上留下了砂浆的污斑。细长的麻仍然留在灰缝中，传统上用来强化灰泥的粘结，砖体稳定。由于一个柱子的位移，造成了东墙稍微移动，并产生了裂缝。对裂缝的位移应该进行监测与测量，以便查看位移是否继续发展。

Brick masonry laid with what appears to be a lime-modified earthen mortar (no analysis has been carried out) and grey fired bricks sits atop the sill wall at either end of the N facade and all along the E and W facades. Large areas of stucco loss on the W facade allowed for limited inspection of the masonry, which appears to be in good condition, with only some minor leaching of mortar and resulting brick staining. Long, thin hemp ropes hang from various points within the mortar joints, traditionally used as a method for keying the stucco during application. The stability of the masonry is also sound, though some movement and cracking may have occurred on the E facade due to movement of one of the columns. Monitoring and crack measurement should be implemented to determine if this movement is active.

会乘殿，西立面，抹灰缺失与砖墙
Huicheng Hall, W Facade
Stucco loss and brick masonry

会乘殿，西立面，抹灰缺失、空鼓、开裂
Huicheng Hall, W Facade
Stucco loss, detachment, and cracking

砖作上面有两层红色抹灰。整个会乘殿墙上的抹灰都有裂缝、刻划、刻痕、污斑和表面沉积。西墙抹灰有大面积的空鼓和脱落，情况严重，需要加固以防进一步的脱落。东墙有一条从柱顶向下垂直的裂缝，这条裂缝与柱子的位移有关，在〈结构评估〉中对此有较为详细的解释。各面墙上都有直径0.5厘米到1厘米的小洞，这些小洞是子弹洞，有些还留有弹头。小洞里的昆虫造成了墙表面的堆积（如蜘蛛网）。檐下1米左右的肮脏墙面上有水流的痕迹，以及灰尘累积成的微小污斑。

Red-colored stucco, composed of two independent layers, has been applied as a coating to the brick masonry. General conditions present throughout the stucco include cracking, mechanical damage (gouging), incised graffiti, staining and surface deposits. Large areas of detachment and adjacent loss are present on the W facade, which is the worst area and in need of stabilization to avoid further loss. The E facade exhibits long vertical cracks emanating downward from one column head, related to column movement further explained in the structural assessment. Small holes of 0.5cm to 1cm in diameter can be seen on all facades and have been determined to be caused by small pellets used as projectiles, still present within the holes in many cases. Insects have moved into many of these holes and contribute to surface deposits (e.g. spider webs) in some cases. Differential staining from water runoff and windborne dust/dirt collection is apparent in a dull and dirty surface along the upper 1m of the stucco, below the eaves, on all facades where present.

会乘殿，西立面，抹灰机械损伤
Huicheng Hall, W Facade
Stucco mechanical damage

还未对内墙的抹灰进行过任何实验分析。在北墙殿门东、西两侧的抹灰上有一层略带黄色的桃红油漆，四周有一条白、黄、红、绿相间的边缘线。墙体抹灰与建筑油饰彩画地仗的工艺不同，墙体抹灰和油饰的涂层都非常薄，透过颜料层可以看到压麻。绿色边缘线损伤程度最重，油层的开裂已造成了空鼓和脱落，其它颜色仍然完整，看来还是很稳定。

会乘殿，西立面，砖墙
Huicheng Hall, W Facade, brick masonry

Interior plasters on masonry walls have not undergone any analysis. Only visible on the N interior facade to the E and W of the doors, this plaster is painted in a yellow-peach color with a border of alternating bands of white, yellow, red, and green. The render seems to be a different technique than that of the architectural red paint (*youshi*) and *caihua*, as both plaster and paint seem to be applied in much thinner layers with beaten fiber in the plaster often visible through the paint layer. The green borders exhibit the most deterioration, in the form of cracking and resulting lifting and loss of the paint layer. Other colors are largely intact and seemingly stable.

会乘殿，北立面
抹灰表面堆积与污迹
Huicheng Hall, N Facade
Stucco surface deposit and staining

殿内柱子之间的木板照壁上原来涂了一层与柱子相似的红色油饰地仗。照壁南面是置供桌和塑像的背光，其地仗几乎全部脱落，很容易就看到木板。在须弥座与照壁之间的地上有大量脱落的地仗。照壁北面的大部分的地仗也已脱落，东面的地仗亦有相当的空鼓和脱落。

会乘殿，北立面，内部，抹灰表面堆积
Huicheng Hall, N wall, interior
Plaster surface deposit

The interior northern partition wall, composed of wood paneling between a row of columns, was originally plastered with a red-colored render similar to that on the columns (*youshi*). The S side of the partition wall, which serves as the backdrop for the altar and central statuary, has almost no extant plaster, such that the bare wood panels are easily observed. A large amount of intact plaster has fallen onto the floor and can be seen in the small space between the stone plinth statuary base and the partition wall. On the N side of the wall, the majority of painted plaster has also been lost. On the E

会乘殿，北立面，内部
抹灰病害
Huicheng Hall, N wall, Interior
Paint loss and cracking

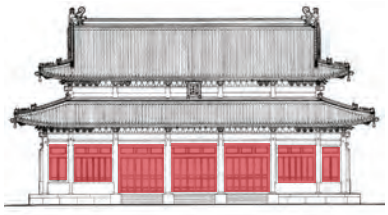
side, a substantial intact section is detached and hanging down on the floor.

会乘殿，内部，木板照壁地仗空鼓和脱落
Huicheng Hall, Interior
Partition wall plaster detachment and loss

会乘殿，内部，木板照壁脱落的地仗
Huicheng Hall, Interior
Partition wall fallen plaster

会乘殿，内部，木板照壁地仗脱落
Huicheng Hall, Interior
Partition wall plaster loss

门及窗的木框架
Wooden Enclosure Frames with doors and windows



门
Doors

木质门扇装饰精美，有雕刻精致的裙板和格芯。这些门扇以前都施有地仗及彩绘，门框上配有青铜铸造的铜活。未毁的地仗和彩绘仍然多处可见，特别是在裙板上与裙板四周。南面的一些门上仍然保留着青铜构件。构件下面有完整的油饰地仗。门扇的内边缘常有切割与刮痕，可能是用于固定地仗。

The wooden panel doors are highly decorative, with intricately carved baffleboards and highly refined latticework. The doors were once plastered and painted, with cast bronze fittings placed around the frames. Extant painted plaster is visible in a number of locations, particularly on and around the baffleboards, while the bronze fittings still run along the edges of the doors on the S facade. Intact painted plaster may also be found underneath extant bronze fittings. Inner edges of doors often have patterns of cut marks and scratches, probably used for keying of plaster.

会乘殿，北立面，门与横批窗
Huicheng Hall, N Facade
Doors and transom windows

在许多木构件、框架和门扇裙板上都能看到相当程度的裂缝或开裂，裂缝中常常存有原来为了填补缝隙所用的灰泥。部份门扇呈灰色，退色可能与紫外线照射有关。南面的门槛有因使用造成的明显磨损，门的配件如门闩（插进槛下石）和外面的门帘框子也缺失了。

Many of the wooden elements, frames and baffleboards, exhibit some level of cracking and/or splitting, with checks often having original plaster fills still extant. Portions of the doors have a grey, bleached appearance, presumably from UV-related deterioration. Thresholds on the S facade manifest erosion from use (abrasion). The S facade also exhibits loss of door accessories, such as wooden deadbolts (that are pushed into the stone sill) and exterior curtain frames.

会乘殿，内部，南槛窗，严重空鼓
Huicheng Hall, Interior, S window
Detached painted plaster

朝向殿内的门面保存着更多的油饰地仗，但是处于不良状态，有大面积空鼓。南立面保存的油饰面积大于北立面。

Interior surfaces of doors preserve a far greater amount of painted plaster, though largely in very poor condition, with large areas completely detached from the wood substrate. The S facade has greater amount of extant decoration than the N.

槛窗与横批窗
Sill and transom windows

只有会乘殿南墙（正面）设有槛窗，槛窗设在东稍间、东尽间与西稍间、西尽间的石槛墙之上。横批窗在南北墙的门与窗的上部。槛窗与横批窗的装饰组合与格芯的形式都和门扇相似，也呈现了类似的破损。

Sill windows are only present on the S facade of Huicheng Hall, where the wooden frames and latticework sit atop the stone sill wall in the last two easternmost and westernmost bays. Transom windows are present on both the N and S facades above doors and sill windows. Similar in composition to the doors and with the same lattice pattern, the sill windows and transom windows exhibit similar types of deterioration.

会乘殿，北立面，横批窗缺失
Huicheng Hall, N Facade, Loss of transom lattice

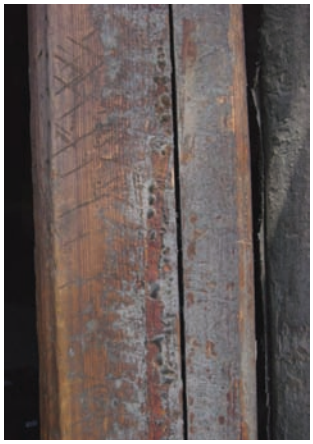
糟朽常常先出现在槛窗的水平框架上，大概是雨水容易在这些部位积存并且被木材吸收了。南北两面的槛窗与横批窗都有裂缝及片状开裂，有些裂缝达2厘米宽或更宽。棂心完整的程度不同，一般来说横批窗比槛窗和门扇保留更多的原件。与墙体抹灰一样，北面缺失的棂心构件多于南面，且少有修复。在北墙有一整扇的棂心都缺失。有些槛窗的铜配件仍然存在，但大部分都缺失了。

会乘殿，南立面，槛窗棂心
新构件
Huicheng Hall, S Facade
Sill window lattice
New components

会乘殿，南立面，门铜配件缺失
Huicheng Hall, S Facade
Loss of bronze fittings

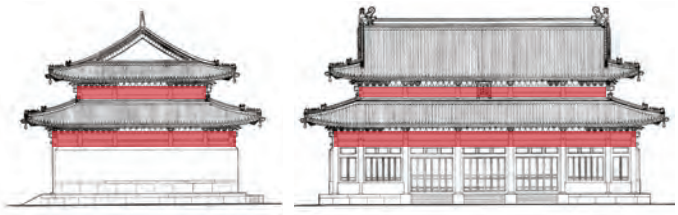
Sill windows often have preferential erosion of their horizontal components (i.e. wooden frame members), presumably due to precipitation accumulating and being absorbed in those areas. Sill and transom windows have cracks and splintering on both facades, with a few cracks of up to 2cm or more in width. Integrity of latticework varies, though transom windows seem to have more extant historic fabric than sill windows and doors. As with painted plaster, the N facade exhibits greater loss of lattice pieces than the S, with fewer repairs. On the N facade, there is loss of one entire lattice. Some bronze fittings are extant on the sill windows, but most have been lost.

会乘殿，南立面，门铜配件
Huicheng Hall, S Facade,
Bronze fitting on door



会乘殿，南立面
门内面边切割
Huicheng Hall, S Facade
Cutmarks on door

大小额枋
Architraves (Greater and Lesser)



大小额枋位于每一开间的柱子上方、斗拱与屋檐的下方。大额枋位于小额枋的上方，其尺寸也比小额枋大。大小额枋结构上的作用是连接梁，提供木框架横向稳定性，防止载重柱子的移动。大小额枋原来都施地仗和彩画。目前很多彩画都已脱落（见‘**《油饰彩画、塑像、陈设物及器物状况评估**报告》）。

These wooden members appear at the upper portions of the columns, below the brackets and eaves at the top of each bay. The greater architrave sits atop the lesser and is larger in section than the former. They serve a structural purpose as tie beams, providing lateral stability to the timber frame by preventing movement of the load-bearing columns. Both components were originally plastered and painted with decorative motifs (*caihua*), much of which has already been lost (See *Condition Assessment of Painted Architectural Surfaces*).

会乘殿，北立面，大小额枋
Huicheng Hall, N Facade
Greater and Lesser Architrave

会乘殿，北立面，东侧，大小额枋
Huicheng Hall, N Facade, E side
Greater and Lesser Architrave

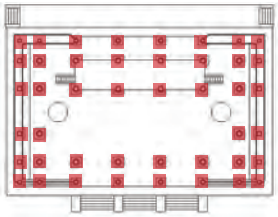
多处地仗的脱落使我们可以对额枋木质进行一些有限度地观察。有些额枋是镶拼起来的，额枋上有4个铁箍，与柱子的做法类似。它们都有不同程度的暴露（保护性的地仗层缺失或移位）、开裂、片状开裂、表面沉积（通常是鸟的排泄物）和污斑（在下边，由于水的缘故）。

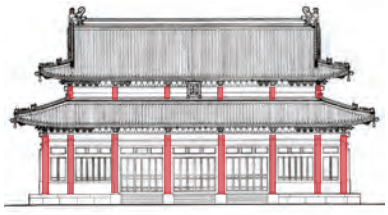
Loss of painted plaster in many areas has allowed for a limited inspection of the wood itself. The members, in some cases composites, each have 4 metal hoops that surround them, much in the same way as the columns. General conditions include exposure (loss or displacement of protective painted plaster), cracking, splintering, surface deposits (usually bird droppings), staining (on underside from water).

会乘殿，西立面，南侧，大小额枋
Huicheng Hall, W Facade, S side
Greater and Lesser Architrave

在上檐小额枋残留的彩画地仗及木头上可以看到老鼠或蝙蝠活动的痕迹（粪便及尿的污斑）。北面东端的额枋有向外移动的现象，可能与东边结构移动有关。东、西两面的平板枋与柱头接触的地方有明显的弯曲。

Upper eave lesser architraves show evidence of rodent and/or bat activity (droppings and urine staining) on extant painted plaster and wood. The E end of the N facade also shows an outward movement of the architrave, presumably tied to the movement of structural members on the E facade. Warping of the flat tie beam (*pingbanfang*) is evident at the interface with column heads on the W and E facades.





柱子
Columns

柱子为镶拼而成，包括木芯及周围的长三角形木条。钉子及铁箍将木条和木芯固定在一起，木条之间还有錐形木栓。柱子的表面经过涂层和装饰之后，看起来好像是由整段木材做的实心柱子。柱子原来裹有石灰质的地仗，地仗是用油满加上数层的纤维或麻绒制成的。地仗的外面涂红漆（朱砂HgS）。目前几乎所有柱子上的地仗和漆都脱落了，仅有少数的几处残存下来，特别是在上部靠近有彩画的额枋部分。室内柱子的表面虽出现裂缝和空鼓，但地仗仍然保存良好。

Columns are composites that comprise a central solid core of wood surrounded and enclosed by long triangular-shaped strips attached to the core with nails and strapped in place with iron hoops that wrap the circumference. Pyramidal wooden pegs are wedged in between the cladding strips. The final surface of the column, once its decorative coating has been applied, gives the impression of being one solid piece of wood hewn from only one log. Originally, all columns would have been covered with a lime-based plaster, such as *youman*, and interspersed with layers of woven fabric and/or beaten fibers. The plaster would then have been coated with red vermilion (HgS) paint. Today, however, almost none of the plaster or paint remains on the exterior columns, though small extant pieces are visible in a few areas, particularly at the upper registers where decorated architraves occur. Interior columns have their protective painted plaster intact, though cracking and detachment are present.

会乘殿，内部，西侧，柱子
Huicheng Hall, Interior
W side, column

结构调查的结果显示柱子保存状况良好，可以承载原来设计的载重量。下面主要要论述的是室外柱子。

Structural investigations suggest that the columns are sound and capable of bearing their intended load. Thus, condition here is largely limited to the outer wooden cladding of the columns and its surface.

会乘殿，南立面，柱子、门、横窗
Huicheng Hall, S Facade
Columns, doors and
transom windows

一般暴露出来的木材颜色变深并且有风化现象。表层材料不同程度的流失造成条痕状的表面（纹理凸出），有时有很明显的棱角。在南面，柱子外层包镶接缝处经常有裂缝，使我们能够有限度地查看柱子内部的情形。这些柱子的内部似乎没有受到紫外线及其它风化作用的影响。北面的木柱损坏严重，下部亦有严重的糟朽。现场试验表明，在木柱相当的高度上仍可用小刀刺入2-3毫米深。试验室的研究也证实了现场检验；一块取自柱子下部已经糟朽部分的样品表明其糟朽深度达到了3厘米，损坏较小的样品显示其表面的糟朽深度仍达2毫米至3毫米。由于严重的风化和紫外线的照射，许多柱子都退色成灰色。在南、北两面的一些柱子上还可以看到蛀洞，是昆虫活动的证据。柱子上也有干裂与线状开裂，但不是主要的问题。

Generally, the exposed wood of the columns has a darkened and weathered appearance. The differential loss (raised grain) of surface material results in a striated surface, with

会乘殿，北立面，柱子下部的腐朽
Huicheng Hall, N Facade,
Column base erosion

pronounced ridges in some cases. On the S facade, opening joints in the column cladding are common and allow for limited inspection of the inner member. These inner cores of the columns, seem unaffected by photodegradation (i.e. UV) or other weathering. The N facade is the most severely deteriorated, with advanced basal erosion of the wood cladding. In situ testing with a penknife revealed 2-3mm penetration higher up on columns. Laboratory investigations confirmed these in situ inspections, as a sample from an eroded base was severely deteriorated up to 3cm, while a more intact sample showed surface deterioration to a depth of a 2-3mm. Many of the columns also appear grey or bleached from extensive weathering and UV-related deterioration. Limited insect activity is also evident in the presence of flightholes in selected columns on both the S and N facades. Cracking and checking are also present, but are not a major concern.

会乘殿，南立面，柱子錐形木栓
Huicheng Hall, S Facade,
Column pegs

殿内有四排柱子，每排由六根柱子组成。大部分的柱子还保存着地仗和红色油饰。最南端一排柱子的地仗和漆层已出现严重开裂和翘曲等现象，大概是由通过门窗棂心进来的雨水和阳光照射所致。最北端的一排柱子已出现退色和地仗脱落等严重风化现象。柱子上金属箍的生锈常造成漆层和地仗的脱落，其中有个别柱子基本上没有留下任何地仗，可能是最后的干预工程只刷了油漆没有上地仗。

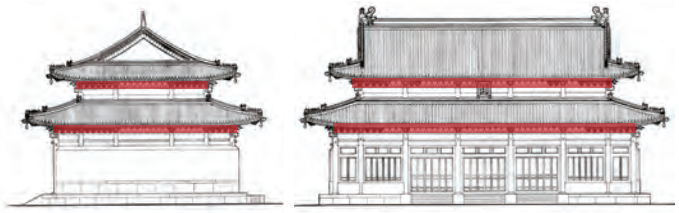
On the interior, there are four rows of six columns, most with extant red painted plaster. The southernmost row of columns exhibits severe cracking and cupping of plaster and paint layers, with sizable areas of loss, presumably as a result of exposure to sunlight and precipitation entering through the open latticework in doors and windows. The northernmost columns exhibit distinct weathering patterns in the form of fading and loss of painted plaster. Rusting of the metal hoops around the columns has often resulted in paint and plaster loss. Some of these columns have negligible plaster layers, perhaps suggesting a later intervention of paint without plaster.

会乘殿，北立面，
柱子铁箍和木头退色
Huicheng Hall, N Facade
Column hoop and
greying of wood

会乘殿，柱子
柱上两种不同色泽的红漆明显可见。大约为先后两次干预活动所致。
Huicheng Hall, column
Two visible paint coatings, thought to be from different interventions

会乘殿，柱子
地仗和油饰脱落后，暴露出下面的纤维层和地仗。
Huicheng Hall, column
Paint and plaster loss, revealing underlying fiber and plaster

斗拱、檩、挑尖梁
Brackets (*Dougong*), Purlins and Exterior Column Beam



斗拱
Brackets

到了清代，斗拱的使用主要用于建筑装饰了。早期建筑的斗拱，其作用在结构上却非同小可，它们用来支持大出挑的屋檐，特别是皇家宫殿与寺庙。会乘殿的每一面墙上的斗拱构件都有缺失。东尽间北面下檐的斗拱有向东及向下移动的迹象。

The corbel bracket set, known as *dougong* in Chinese, emblematic of Imperial Chinese architecture was used largely as a decorative device during the Qing Dynasty. Earlier, however, it served a vital structural function in supporting the large overhanging eaves typical of imperial residences and temples. There has been loss of bracket components (i.e. pieces) on all facades of the building. On the lower eave N facade, at the easternmost bay, the brackets show some displacement towards the E and downward.

檩
Purlins

檩是纵向的构件，架在斗拱上支撑椽子。与额枋一样，檩上原有厚地仗层和油饰彩画。上世纪50年代修理屋顶的时候，上下檐都有不少的檩被更换掉。这些更换过的檩都涂了红漆，很容易辨别，可以用来区别早期的或是原始的檩。

The purlins, longitudinal members supporting the rafters, sit above the brackets and were originally decorated with *caihua*, composed of thick painted plaster, just as the architraves. As part of roof repair carried out in the 1950s, a number of purlins on both the lower and upper eaves were replaced. They are painted red and are clearly visible in contrast to earlier, presumably original, components.

一般来说，檩都还保留着一些地仗彩画，而且保存的地仗彩画比额枋上的还多。虽然如此，很多檩也暴露出部分的木结构并且显示出小量的开裂与干裂。在西次间南面墙的木结构有明显的弯曲。在西面上檐的一根柱子有向外移动的迹象。

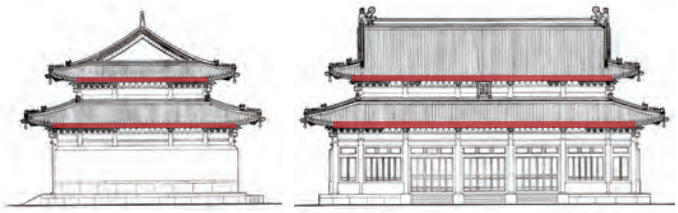
In general, purlins still have some extant painted plaster, often to a greater extent than the architraves below. Nonetheless, many of the purlins are at least partially exposed, revealing minor cracking and/or checking in the wooden members. Warping is evident in one member on the S facade in the Next W Bay and there is outward movement of a column in the upper eave on the W facade.

挑尖梁
Exterior Column Beam

这些大的承重梁在南、北两面都可以看到。在东、西两面也可以看到类似的构件（虽然不是承重梁）。一般，它们都有中等程度的开裂，有一些木梁则完全暴露出来。从西面下檐这些构件的方向可以推想以前有过对角方向的移动，不过这种移动也可能原来就有。有些构件已经被更换过。例如，在北墙有一段新的木材夹在旧的木材中，可能是腐烂的一段梁被抽换了。

The ends of these large load-bearing beams are visible on the N and S facades, with similar members (though not load-bearing) present on the E and W facades. In general, they have moderate cracking and some are completely exposed. On the lower eave W facade, the orientation of the members suggest a prior diagonal displacement, though this may have been original. Some members have been replaced and, in one case on the N facade, a new piece of timber was sistered into the older member, presumably replacing a decayed portion of the beam.

椽子
Rafters



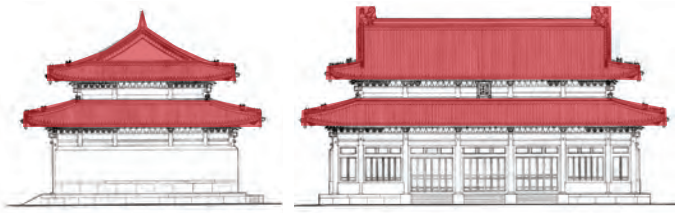
屋顶的出檐部分为椽子构成，它们支持着屋面与屋瓦。椽子还包括一些特殊的形式，如檐椽、翼角椽和飞椽。会乘殿的椽子除了少数的翼角椽之外，其它所有椽子在上世纪50年代修屋顶的时候都被更换过了。这些新近换过的椽子都涂了一层薄的红漆，情况良好。目前可见到干裂、少数的开裂、末端油漆脱落等现象。

Rafters are the immediate support for the roof boards and tiles that compose the overhanging eaves. A number of special types of rafters are included within this category such as eave rafters (*yanchuan*), hip rafters (*jiaoliang*, lit. 'corner beam'), and flying rafters (*feichuan*). All rafters in Huicheng Hall, leave a few hip rafters, were replaced as part of a roof repair campaign in the 1950s. These recent replacements are coated in a thin layer of red paint and are generally in extremely good condition. Conditions that are visible include some checking, minor surface cracking, and loss of paint at the ends of the beams.

会乘殿，西立面，椽子
Huicheng Hall, W Facade
Rafters

会乘殿，北立面，椽子
Huicheng Hall, N Facade
Rafters

屋顶构件：琉璃瓦与脊兽
Roof Elements: Glazed Tiles and Ornaments



会乘殿屋顶的黄色琉璃瓦除了追求建筑的华丽之外，也提醒人们该寺庙为皇家专用。根据纪录，1957年的翻修中更换了支撑屋瓦的望板。到目前为止，很多琉璃瓦都被更换过，但琉璃脊兽则没有被更换过（现场堆积着一些更换下来的或准备重新使用的琉璃瓦）。

The yellow glazed roof tiles of Huicheng Hall, in addition to being an important part of the aesthetic of the building, are a distinct reminder of the imperial standing of the temple, yellow being reserved for use by the emperor. According to records, all roofing boards, i.e. the support for the roof tiles, were replaced during the 1957 interventions. At this time, many of the glazed tiles were also replaced, though some were left in situ or reused and the glazed ornaments (*chi wei*, *chuiji shou*) were not replaced.

会乘殿，下檐东北角
仙人部分缺失、琉璃脱落
Huicheng Hall, NE hip ridge
Loss of ornaments and glaze

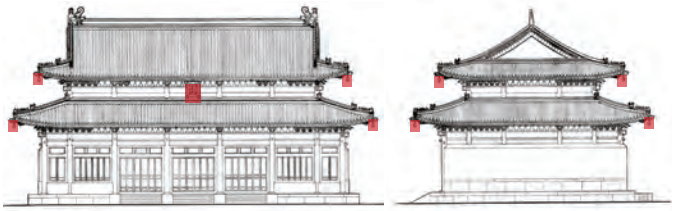
会乘殿屋檐的上下檐都长了植物，但是下檐的植物长的比上檐更多更密。琉璃的脱落，瓦的开裂、破损、缺失是常见问题，特别是瓦当。屋檐四面的瓦当常有开裂和破损。

Both levels of eaves have widespread plant growth, though the lower eave is host to thicker, more developed growth. Glaze loss is also a common condition on the tiles, as are cracking, breaking and partial loss of the fired tiles themselves. In particular, eave end tiles, or *wa dang*, are often cracked and broken on all facades.

西立面小红山有大量的琉璃板瓦破损严重。至少有5处的瓦已经完全开裂、破损。屋脊上的琉璃脱落相当严重，同时也受到避雷针附加装置的铁锈与生物生长的污染。北面下檐的垂脊兽有的有破损，有的则完全缺失。很多的钉子帽有松动、移位和缺失等现象。

The large flat glazed tiles on the W gable show large cracks and, in at least five cases, have resulted in complete splitting or breaking of the tile. The roof ridge shows advanced glaze loss and some staining from lightning rod attachments and, perhaps, biological growth. Glazed animals (*chuiji shou*) suffer loss and partial loss on the N facade lower eave. Many of the tile nail caps are loose/displaced or lost.

会乘殿，东立面，小红山的琉璃
Huicheng Hall, E Facade
Gable



附加物与装饰物
Accessories and Ornaments

附加物与装饰物是附在建筑上的附件（不是建筑本身的构件），为装饰或保护用。

A number of elements not integral to the architecture adorn the building and serve either decorative purposes or serve protective functions.

会乘殿，南立面，匾
Huicheng Hall, S Facade
Plaque

鸟网
Bird Netting

在上、下檐斗拱与额枋的位置都装有金属网，以防止鸟类与其它动物的活动。这些可能是铁质的网，部分保存良好，但是基本失去了作用，因为网内多处地方的彩画上都有明显的鸟、老鼠或蝙蝠活动的迹象。

A mesh metal net was placed on both the lower and upper eaves over the corbel bracket (*dougong*) and architrave system to prevent activity from birds and other animals. This netting, seemingly of a ferrous metal, is still intact but has largely failed, since bird and rodent/bat activity is evident in much of the *caihua* in these areas.

会乘殿，上檐西南角，风铎
Huicheng Hall, Upper eave, SW corner
Bell

铃
Bells

每一个屋檐的角落都挂有金属铃。由于不易接近而无法详细的检查它们，仅从地面观察，其保存状况似乎良好。

Metal bells hang from the corners of each of the eaves. Limited access did not allow for close inspection of the bells, though they are all present and seem intact from ground inspection.

避雷针
Lightning Rods

避雷针装在屋顶上，经建筑到达地面。避雷针保存完好，但是避雷针本身及其装置却影响到会乘殿：固定避雷针的配件损坏了墙皮，建筑石材上留下了铁锈。

Lightning rods were installed on the roof and run down the building to the ground. In seemingly good condition, the rods and their installation have impacted the building materials, through damage to stucco by fasteners and staining of stone from rust.

匾
Plaque

挂在会乘殿殿门的上方的上檐处，匾的保存状况良好，很有开裂，其外表装饰有一些缺失。

The name plaque which sits above the main entrance, on the upper eave, is still intact with some cracking and loss of elements and surface decoration evident.

承德殊像寺会乘殿结构稳定性分析
Analysis of Structural Stability of Huicheng Hall at Shuxiang Temple

1、殊像寺会乘殿结构特征
Structural Features of Huicheng Hall

殊像寺会乘殿为重檐黄琉璃瓦歇山顶清官式建筑，面阔七间，进深五间，梁架采用抬梁式结构，每缝梁架用6柱，明间、次间4缝梁架采用减柱做法，用5柱；下檐四周额枋上均施五踩斗拱，平身科斗拱明间8攒、次间8攒、稍间6攒、进间3攒；上檐斗拱与下檐斗拱数量及做法相同；金柱上承托上檐额枋，撑托上层斗拱，斗拱上托天花板，上部梁架被天花板遮挡，情况不详。按照清官式做法，梁架一般采用：三架梁、五架梁、七架梁、九架梁等结构；根据内柱间进深（8.37米）分析，应为抬梁式七架梁或九架梁结构。

Huicheng Hall is a Qing imperial structure with double eaves covered with yellow glazed tiles on a hip and gable roof. It is seven bays wide and five bays deep. The beam framework uses a 'lifting beam' (post-and-lintel frame) type structure where each post-and-lintel structural unit incorporates six columns. The center bay and the bays next to the center bay have a framework of four column beams, which uses the 'column omitting structure' (*jianzhu*) method and has only five columns. On each of the sides of the lower eave's decorated architraves there are *wucai* brackets, eight sets of intermediate corbel-brackets in the central bay, eight sets in the bays next to the center bay, six sets in the bays two bays from the center bay and three sets in the end bays. The brackets on the upper and lower eaves are the same in number and structure. On the bolster of the principal column is the upper eave decorated architraves, and on the bolsters are the upper level brackets. On the upper level brackets rests the ceiling. The upper beam framework is hidden by the ceiling, so it is not possible to properly examine it. The beam framework structure employed for Qing imperial buildings was: a beam holding three purlins, a beam holding five purlins, a beam holding seven purlins and a beam holding nine purlins. As there was a distance of 8.37m between the inner columns, one can presume that there would have been a 'lifting beam' structure with a beam holding seven purlins or a beam holding nine purlins.

2、基础稳定性
Stability of the Foundation

①台基表面超平

Platform Subsidence

南面与北面最大高差分别为0.007米和0.010米，考虑到测量误差、压面石表面粗糙程度与石质风化等因素，南北两面高差属于正常范围，可认定南北两面台基未产生不均匀沉降。

Measurements of the platform height were taken at several locations to see if some sections showed signs of settlement. The difference between the north and south end of the platform is 0.007m and 0.010m which is regarded as normal for this type of structure, thus indicating no settlement.

东面与西面最大高差分别为0.045米和0.041米，从表1数据可以看出，建筑台基的东西两面均呈南低北高形态，且高差均在40毫米左右；由于基础不均匀沉降而产生目前状态的概率很小，可以排除不均匀下降因素。因此，目前状态可推定为该建筑的原始状态。中国古代佛教寺院均选择或营造南低北高的地形，以便于排水；该建筑台基是否借鉴、沿用此做法尚不得而知。

East-west variances are 0.045m and 0.041m, with the south side lower than the north by 40mm, however the probability of settlement is low, thus this structure is basically in the same condition as when it was first built. Buddhist temples in China are deliberately located and built on topography where the southern end is lower than the northern end, in part to provide a natural slope for adequate drainage, although this is not

the primary motivation in the case for Shuxiang Temple.

表1：会乘殿台基上表面相对高程

Table 1 Height of Platform Surface

	测点1 Point 1	测点2 Point 2	测点3 Point 3	测点4 Point 4	测点5 Point 5	最大高差（米） Greatest Difference (m)
南侧 S	1.337	1.334	1.330	1.335		0.007
东侧 E	1.329	1.321	1.335	1.356	1.366	0.045
西侧 W	1.341	1.343	1.358	1.382		0.041
北侧 N	1.327	1.328	1.324	1.317		0.010

②台基残毁部位分析

Analysis of the Deterioration of the Platform

会乘殿东面中部台帮石外鼓（照片1），4块台帮石外闪约40毫米。西侧对称部位3块台帮石外闪约20毫米。

On the east gable wall, some of the stones on the central section of the platform (*taibang*) are protruding (*waigu*), with four stones tilting outwards (*waishan*) around 40mm (Fig. 1). On the west gable wall, there are three stones with an outward tilt of about 20mm.

过去，此段台基上部及相邻区域曾堆积杂物，并有杂土淤积，致使降雨后，水份无法正常排出，台基内部土层长期被雨水浸泡膨胀，导致台帮石外鼓。西侧台帮石歪闪原因也是雨水浸泡所致。

In the past, refuse collected around the base resulting in the inability of rainwater to drain away. This caused the rammed earth inside the platform to become saturated with water and the outer stones of the platform to move out of plane. The protrusion of the foundation stones on the west is also due to the absorption of rainwater.

小结，台基残毁破坏属于局部构造性破坏，不影响基础稳定性。

Conclusion: deterioration of the platform is localized and should not interfere with the stability of the foundations.

3、墙体稳定性分析
Analysis of the Stability of the Wall Structures

残毁部位稳定性分析

Analysis of the Stability of the Areas where Deterioration has Occurred.

东侧中部墙体沿着檐柱纵向裂缝一道（照片2）。

分析形成原因有两种：一是内部柱子糟朽，造成外部包砌墙体局部开裂；一是墙体外侧长期堆积杂物或杂土淤积，致使降雨后，水份无法正常排出，墙基土层长期被雨水浸泡，局部塌陷所致。

Vertical stucco cracking is present along the length of one column on the eastern side of the wall (See Fig. 2). This cracking is caused by the rotting of the wooden column and the resulting cracking of surrounding brick masonry; rubbish accumulated on the outside of the wall for a long period of time not enabling the water to drain away after rainfall which caused the earth layer at the foot of the wall to become saturated

thereby resulting in the damage seen.

经柱网超平，未发现内部柱子下沉，内部柱子糟朽几率较小；后一种原因概率较大。由于现在淤土、杂物已经清除，且墙体开裂缝隙较小，建议做观测点，对裂缝情况进行监测，根据监测结果再做修缮方案。

The central part of the columns do not show signs of differential settlement. There is minimal rotting in columns. Debris has now been removed and the cracking in the walls is also minimal. Monitoring of cracks is recommended, as well as drafting of a repair plan to be implemented after monitoring.

小结，会乘殿柱网各立柱为主要承重构件，墙体仅为围护结构，墙体残毁不会对建筑稳定性构成威胁。

Conclusion: the columns are the main components that carry the weight of the building with the walls playing no role in support. Thus, deterioration of the walls poses no threat to the stability of the structure.

4、大木构架稳定性分析
Analysis of the Stability of the Major Wooden Frame

大木构架超平数据分析

Investigation of Wooden Structural Frame

会乘殿大木构架采用抬梁式构件，屋面荷载经望板、椽子传至檩及随檩枋，通过檩、枋传至各梁与柱子，各构件节点均采用榫卯连接，由此形成了会乘殿木构框架体系。该框架即具有一定的木质柔性特征，又有较强的整体刚度。

Description of frame structure: the wooden structure allows for some flexibility but also creates a strong overall rigidity.

表2：会乘殿柱网相对高程分析表　Table 2: Height of Columns in Huicheng Hall

	部位 Components	测点1 Point 1	测点2 Point 2	测点3 Point 3	测点4 Point 4	测点5 Point 5	测点6 Point 6	测点7 Point 7	最大高差（米） Greatest Difference (m)
南侧 S	柱根	1.470	1.474	1.474	1.477	1.478	1.471	1.475	0.008
	柱头	6.943	6.927	6.925	6.918	6.924	6.918	6.929	0.025
东侧 E	下檐柱头	6.937	6.840	6.921	6.934	6.953	6.976		0.136
	上檐柱头		11.185	11.103	11.103	11.244			0.141
西侧 W	下檐柱头	6.947	6.914	6.886	6.906	6.924	6.982		0.096
	上檐柱头		11.174	11.181	11.187	11.222			0.048
北侧 N	柱根			1.456	1.456	1.455	1.462		0.007
	柱头	6.922	6.889	6.877	6.888	6.902	6.869	6.890	0.053

会乘殿南侧柱根（即柱顶石上皮），最大高差仅差8毫米，考虑测量误差因素，南侧下檐柱根应视为在一个水平面上。下檐柱头高差为25毫米，到角部稍显抬高，具有小幅度升起，符合传统古建做法；北侧情况与南侧基本相同。会乘殿柱顶石均为清式方石柱顶石，鼓径尺度较大，且稳定、无变形毁坏；能够有效承受柱子荷载。

The foot of the columns of the lower eaves on the southern side are basically level. The top of the columns have a difference in height of 25mm particularly at the corners where they are slightly raised but this is common with traditional Chinese buildings. However the northern side is similar to the southern side. All the column bases are made from square stone bases and they have swollen, but are stable without deformity;

they are capable of effectively bearing the column loads.

如表2所示，下檐西侧柱头除两角柱升起外，其余各柱基本保持水平；下檐东侧柱头去除角部升起因素，第二根柱明显偏低，比其两侧柱分别低97毫米和81㎜，该柱可能因糟朽而被压变形（因未揭露无法确定），与之相连的额枋也轻度变形；额枋上层为斗拱层，交圈的斗拱层构成弹性介质层，减缓了下层构件变形对上层的影响。因此，下层轻度变形尚未对主体结构稳定性构成影响。

On the west side, the lower eave columns are basically level with the corner column heads raised. On the east side lower eave, the corners of the column heads are slightly raised, compared to the columns on either side; column number two is significantly lower by 97mm and 81mm respectively, probably due to the fact that it has become deformed from rotting (as we did not expose the column we cannot be totally certain of the cause). The decorated tie-beam that the column is connected to is slightly deformed as well. The bracket set is on top of the tie-beam and the closed jiaoquan bracket layer forms a resilient medium which reduces the affect of the deformation of the lower level components to the upper level components. Thus, although the lower level is slightly deformed this has no effect on the stability of the main structure.

②残毁变形部位分析

Analysis of Structural Deformation

上檐东侧与西侧相比，角柱高度基本持平，东侧两金柱比西侧两金柱约低80毫米，因而升起幅度相对较大。从室内观察：该金柱后加抱柱两根，上部梁枋劈裂下沉；加抱柱后，构架已经稳定（照片3）。

The corner columns on the east side of the upper eaves are basically the same height with the two principal columns being 80mm lower than those on the western side. This has caused considerable raising. Observations from within the hall show that the principal column has been wrapped with two pieces of wood and that the upper beam ties have cracked and subsided. After being supported by two external wood columns the framework has been stabilized (Fig. 3).

西部二根金柱向内歪闪约9厘米；超平测出金柱柱头比角部柱头低40余毫米，有柱子倾斜的因素；东侧二金柱也轻度内闪。

The two principal columns on the western side have tilted inwards by approximately 9cm and the column heads of the main columns are 40mm lower than the corner columns causing the columns to slope. The two principal columns on the eastern side are sloping inwards slightly.

另外，金柱横向（南北方向）有踩步金等构件拉接，纵向（向室内方向）缺少拉接，因此柱子纵向受剪力，这是构成东西两侧金柱内闪的主要原因。也是整座建筑主要不合理之处。柱子内倾能使结构整体更加稳定，这是古建筑常用的“侧脚”做法，因此，金柱倾斜后，大木构架已处于稳定状态。

The principal columns on the north south axis are affected horizontally by tensile force caused by the gable beam and other components, and vertically (towards the inside of the hall) there is no tensile forceh; thus the columns are affected by vertical shear and this is the main cause of the main columns on the east and west sides tilting inwards. It is also the most irrational aspect of the structure. The columns tilting inwards (on the north south direction) can make a structure more stable. This is what is commonly referred to as cejiao tilting (where a column has a top leaning slightly inward and bottom outward with respect to the axis of a building); once the main beams have been tilted the main wooden framework will be in a stable condition.

后檐西部二根抱头梁端部开裂，对结构稳定没有影响。

Cracks have appeared on the ends of the two eave beams that span transversally from the eaves column to the interior column in the back of the building on the western section, but this has had no affect on the stability of the structure.

后檐明间次间柱根部糟朽，但柱子未显下沉，对结构稳定不构成影响。

The bottom of the column in the bay next to the central bay at the back of the building has been affected by rot. However, there is no apparent differential settlement and it has had no affect on the stability of the structure.

每块天花板上均有漏雨水纹；可推测屋面有漏雨，但梁架是否糟朽不明。

Water stains on all the ceiling tiles show that the roof leaks, however the condition of beam framework is unknown because the portion above the ceiling panels was not investigated.

5、结论
Conclusion

天花板之上结构不详，仅从可见部分分析，殊像寺会乘殿整体结构处于稳定状态，现存破坏属于构件局部性破坏，不属于结构性破坏。

We do not have much detail on the structure of the ceiling and have only made an analysis of what we can see with the naked eye. However, we feel that the overall structure of Huicheng Hall is in a stable condition with present deterioration localized to a few structural components, rather than affecting the entire system.

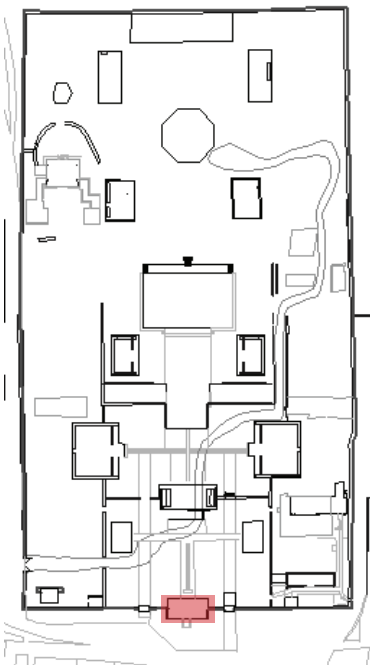
1、台基东侧，外鼓台帮
Platform, E side, protrusion of stones

2、东山墙，开裂墙体
E side, Gable wall, cracking

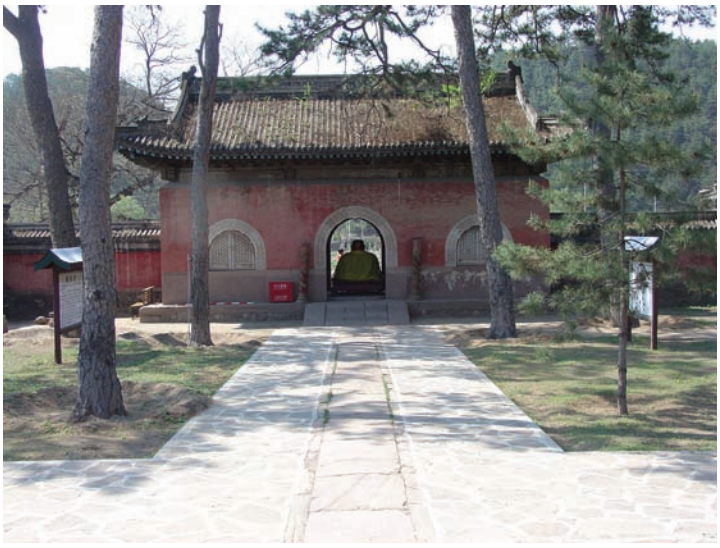
3、室内，后加抱柱
Interior column shoring

山门:
状况评估

Shanmen (Gatehouse):
Condition Assessment

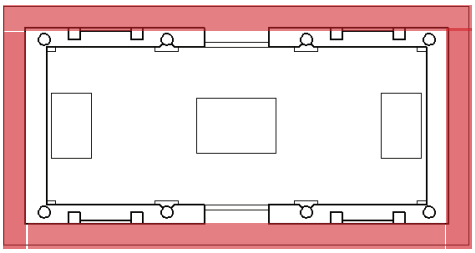


山门，南立面
Shanmen, S Facade



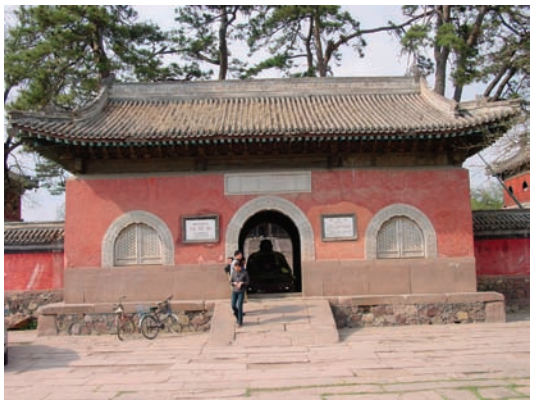
山门，北立面
Shanmen, N Facade

台基
Platform



山门的台基是由大块毛石、红砂岩的直立埋头石与水平阶条石和好头石组成的，与会乘殿的台基不同。台基南北两侧的红沙岩垂带与圆拱门相对。台基东西两侧的陡板与围墙相接。

The platform of Shanmen, unlike that of Huicheng Hall, is composed of large rubble stones with vertical corner ashlars and horizontal coping of red sandstone. The N and S facades each have a red sandstone ramp in line with the arcuated doorways, while the E and W facades are intersected by the site wall.



山门，南立面
Shanmen, S Facade

堆砌的毛石有局部缺失，并有轻度的表面侵蚀。后期修复时使用了水泥勾缝，破坏了建筑整体美感，并且可能导致了砂岩石材上的盐霜及其它的病害状况，虽然目前还未对水泥与盐霜作取样分析。遗址北侧的西墙表面为毛石虎皮，表层毛石有严重缺失，围墙顶部的沙岩也有严重的侵蚀。

The rubble masonry suffers from localized loss of stone and some minor surface erosion of the stone. Later repointing interventions using cementitious mortar are aesthetically inappropriate and may be contributing to efflorescence and certain conditions in the sandstone, though no analysis of the mortar or efflorescing salts has been undertaken to verify this. The N side of the W wall has extensive loss of rubble masonry and severe erosion of sandstone coping.

山门，台基东南角
被侵蚀的角部

Shanmen, SE Platform corner
Eroded corners

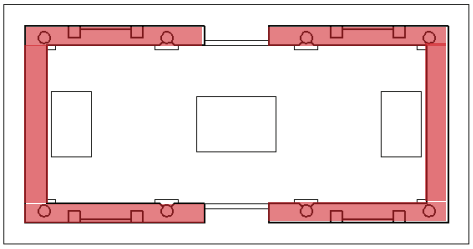
整体看来，台基上的红砂岩已被侵蚀，特别是边缘与转角的石块。这些石块多有起甲和片状剥落的现象。片状剥落和起甲是引起表面材料流失的主要原因。台基上大部分的石块都有局部性的表面沉积、污迹和盐霜。在北面的表层有水泥质的沉积物（可能是修屋顶的水泥沙浆）。东南角的侵蚀最为严重，也是造成台基东南角与西南角水平高度不同的原因。

In general, the red sandstone of the platform exhibits erosion, particularly at the edges and corners of blocks. Many of these blocks also suffer from flaking and scaling, which seem to be the primary mechanisms of surface material loss. Surface deposits, staining, and efflorescence are localized throughout the large sandstone blocks of the entire platform. On the N facade, deposits of a cementitious material (perhaps mortar used in roof repairs), rest on the surface of the horizontal top members. The SE corner shows the most severe erosion, which has also resulted in a significant level difference between the SE and SW corners.

山门，南立面，台基
毛石缺失

Shanmen, S Facade, platform
Loss of rubble fill

槛墙
Sill wall



山门墙体是由大块红砂岩及大块毛石堆砌而成的。南北两面的墙基各为一道红砂岩角柱石，其上为一层水平的红砂岩（榻板石），其上是抹灰砖墙。东西两面山墙的角柱石为红砂岩所制，角柱石之间的山墙下碱为大块毛石堆砌，其上为水平红砂岩腰线石。

The sill wall is composed of large slabs of red sandstone and large rubble stone masonry. On the S and N facades, a base course of red sandstone slabs is set vertically and another course set horizontally as coping, upon which the plastered brick masonry sits. On the E and W facades, after the corner red sandstone block at each end, the base is composed of stone rubble masonry, as on the platform, and the same horizontally laid red sandstone serves as coping.

山门， 西南角
Shanmen, SW Corner

墙体外表有表面堆积和污渍。墙北面与西次间相连的部份有大量的白漆和由其它材料造成的污渍，余下的墙仅有水滴与泼溅造成的污迹。小量泼溅的蓝漆到处可见，可能为1950年代修理屋顶时所致。在北墙的东角上有大量墨水与黑漆涂写的字迹。在南面可见局部性的石材缺角与侵蚀，有一处用水泥进行了填补，与原状不谐调。西墙南部的墙体与墙角红砂岩的底部同时发生了严重侵蚀，侵蚀部分高达27厘米。

Conditions prevalent on the sill wall are largely related to surface deposits and staining. White paint or other material mars much of the sill wall on the N facade Next W Bay, and is present in the form of drops or splatters in other areas. Blue paint splatters are present throughout in small quantities and presumably date from roof repairs during the 1950s. Large graffiti in ink or black paint is present on the E corner slab of the N facade. On the S facade, localized corner spall and erosion are present as well as an incompatible cementitious fill. The W facade on the S side of the site wall exhibits severe basal erosion of the rubble masonry and the corner red sandstone, up to approximately 20cm in height.

山门，南立面，下碱
水泥填充

Shanmen, S Facade, sill wall
Cement infill

山门内部的鹦鹉岩陡板墙也有污渍和表面沉积，油漆及其它材料的泼溅到处可见。室内西墙下碱潮气上侵，水迹高达榻板的顶部。东墙北角有大量高达0.5米类似石灰的残迹。

小量污斑与盐霜在墙面上到处可见。

On the interior, the sill wall also suffers from staining and surface deposits. Paint and other materials splattering is present throughout. The W facade bears signs of moisture almost to the height of the top horizontal course. On the E facade at the N corner, major deposits of lime-like material are present up to 0.5m in height. Minor basal staining and some efflorescence are present along most of the wall.

山门，北侧下碱
残迹

Shanmen, N Sill wall
Staining and surface deposit

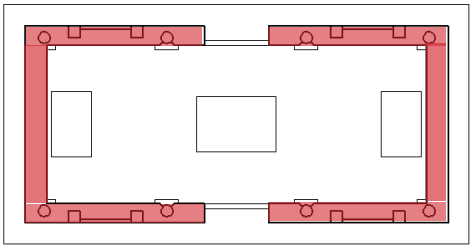
山门，室内东墙下碱
残迹

Shanmen, E Interior sill wall
Staining and surface deposit

山门，室内西墙下碱
潮气上浸引起的水迹

Shanmen, W Interior sill wall
Staining attributed to rising damp

砖石墙体、抹灰及地仗
Masonry Walls, Stucco and Plaster



建筑四面墙上的砖砌墙体，在建筑结构上并没有重要的作用。保存完好的红色抹灰使人无法直接观察到其下的墙体，但从建筑结构上来看，墙体是稳定的。

A masonry wall sits atop the sill wall and serves as an enclosure for the building, but does not fulfill any substantial structural function. The intact red stucco does not allow for any direct observation of the masonry, but structural investigations have determined that the wall itself is stable.

尚未分析抹灰的成分，但据肉眼观察，并据传统的建筑方式，这层抹灰可能与会乘殿的抹灰一致。两处抹灰的残损状况相似，但是山门抹灰出现的裂缝较多，特别是在门窗与匾的周围，这和门窗经常开关所引起震动有关。南面砖砌墙上有许多孔状脱落，多在1米左右的高处。北面有胡乱的涂写。

The stucco has not been analyzed, but visual observation and traditional building practices suggest it is comparable to that of Huicheng Hall. General types of deterioration present in the stucco are also comparable, though cracking is a bit more extensive, particularly around stone openings (doors and windows) and plaques, due to their movement. Pitting is present all along the S facade up to about 1m above the sill wall. Incised graffiti are present along the N facade.

山门，南立面
文保标志周围不和谐的重新抹灰和开裂

Shanmen, S Facade
Incompatible replastering around new sign, with cracking

所有墙面上都有由油漆、水迹、尘埃、鸟粪造成的表面沉积与污渍。局部墙面的表层抹灰脱落，露出下面的一层红色抹灰，说明了表层抹灰是后来修护时加上的。另外，在东、西次间的南墙外侧，各有一处不谐调的抹灰，可能是在拱门两边安装两个大理石匾时所造成的。

Surface deposits and staining from paint droppings, moisture, airborne dirt, and bird droppings are present on all facades. There are localized areas of loss of the upper plaster layer, revealing another red stucco below, which may suggest that the current outer layer represents a later intervention. In addition, the S facade has two areas of aesthetically incompatible interventions on either side bay, presumably carried out as part of the installations of two marble plaques on either side of the stone entryway arch.

山门，北立面
带状受潮痕迹、表面堆积和开裂

Shanmen, N Facade
Band of staining from moisture with surface deposit and cracking

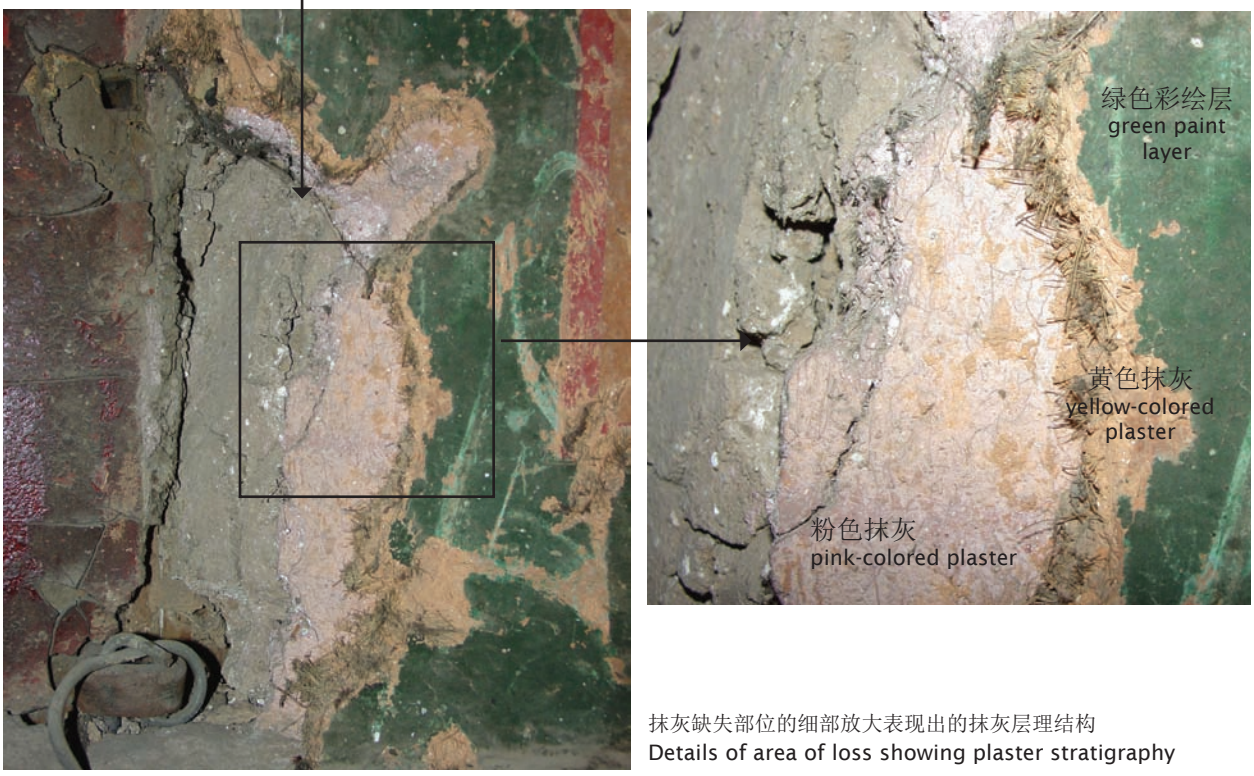
室内抹灰在材料与设计上都与会乘殿相类似，对此尚未进行详细的研究。

Interior plaster is similar in material and design to that in Huicheng Hall but has not been investigated in detail.

山门室内各面墙上身以黄色单色抹灰及黄、红、绿色边框装饰。虽然在调查中并没有对室内抹灰进行分析，但通过肉眼对层理结构的观察可见一层与室外粉刷外观相像的粉色灰泥，其上为纤维含量高和黄色调的抹灰，再上为彩绘层。

In each bay of Shanmen, above the stone sill wall, the interior walls are decorated with a solid yellow-colored plaster with a white/red/green framed border decoration. Though the interior plaster was not analyzed during this investigation, the stratigraphy from visual inspection shows a pink plaster, similar in appearance to the exterior stucco, followed by a high-fiber content, yellow hued earthen plaster, followed by the paint layer.

室内南墙，图中可见黄色抹灰装饰，并标注了局部照片的位置
Interior south wall showing yellow-colored plaster decoration and location of detail photograph.



抹灰缺失部位的细部放大表现出的抹灰层理结构
Details of area of loss showing plaster stratigraphy

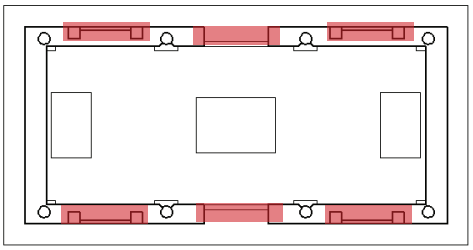
门窗石匾
Doors, Windows, and Stone Plaques

山门的南北两面均设盲窗和券门，盲窗和券门门框为鹦鹉岩雕刻而成。窗框和门框上均有雕刻的“汉文”图案，而盲窗的棂心则是雕刻的六角菱花。在正面入口处上方墙上嵌有一块鹦鹉岩石匾，上面有用四种文字刻写的“殊像寺”。入口两边各有一块嵌入墙内的大理石匾，标示着殊像寺的保护级别与保护范围。这两块大理石匾是后期安装的。

The N and S facades of Shanmen are embellished with carved *yingwuyan* door surrounds and blind windows that rest on the sill wall. The carved arcuated surround for the doors and windows employs a pattern known as *hanwen* and the pattern of the carved latticework of the blind windows is called *liujiao linghua* (six-horned caltrop). Atop the entryway surround on the S facade is a *yingwuyan* carved plaque with the name of Shuxiang Temple listed in four languages. Two other plaques of white marble, installed as later interventions on either side of the S entrance, announce the designation as a protected site and the establishment of a buffer zone of the temple.

盲窗、石券门和石匾的外表状况良好，仅有轻度的侵蚀，并有小量的花纹失去了雕刻的清晰度。一般来说，所有石质构件的表面都存在着沉积与污渍。北面西次间盲窗的拱心石有位移现象，北面的石券门也出现同样的情形。两个门周围的拱腹都有表面沉积与污渍，大约是表层刷过一层桐油。正面石券门西边的拱腹上出现裂缝，周围有片状剥落与起甲。

The surface of the stone is largely in good condition, with little erosion or loss of definition of the carvings. In general, the conditions present are staining and surface deposits, which affect all the stone elements. The window in the W bay on the N facade shows displacement of its keystone, as does the door surround on the N facade. The soffits of both door surrounds exhibit staining and surface deposits, seemingly from a coating reminiscent of tung oil. On the W side of the S facade door surround soffit is a crack with adjacent scaling and flaking.

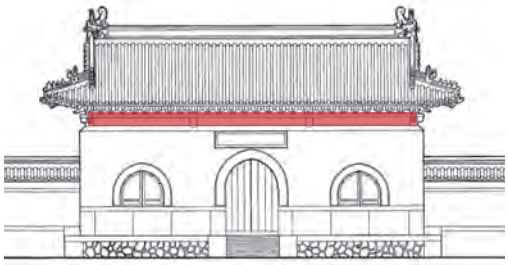


山门，北立面，雕刻的券门
Shanmen, N Facade
Carved door surround

山门，北立面，雕刻的盲窗
Shanmen, N Facade, carved blind window

山门，南立面，雕刻的石匾
Shanmen, S Facade, carved stone plaque

额枋
Architrave



额枋是承载柱子的联接梁，位于山墙上方。平板枋置于额枋上面。它们原来都有彩画，部分保留下来了。见《**油饰彩画、塑像、陈设物及器物状况评估**报告》。

Architraves sit above the stuccoed masonry enclosure wall and serve as tie beams between the load-bearing columns encased in the walls. A flat tie-beam sits atop the larger architrave and both were originally covered in decorative paint, areas of which are extant. See *Condition Assessment of Painted Architectural Surfaces, Sculpture, Furnishings and Objects* later in this volume for further information.

额枋木材露明的部分有裂缝。根据观察，裂缝对于结构没有影响，因而不需要更换。东西两面额枋上的地仗和彩画保存完整，但南北两面的额枋上仅保存有部分地仗，有数处额枋暴露出来，另有几间的额枋已经完全暴露。北面所有的平板枋都发生了变形。

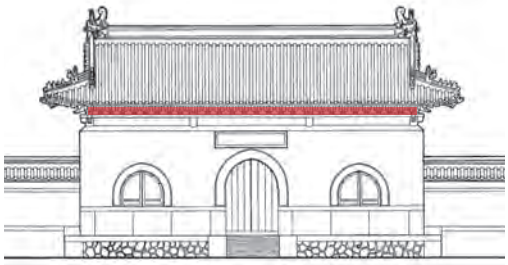
Where visible, the wood of the architraves is cracked, but does not seem to pose any structural problems requiring replacement. E and W facades have intact painted plaster, while the N and S facades have some intact plaster and exposure, with certain bays being completely exposed. The flat tie beam exhibits warping in all bays of the N facade.

山门，南立面，额枋和平板枋
木质暴露、开裂
Shanmen, S Facade, architrave and flat tie-beam
Exposed wood, cracking

山门，东立面，额枋和平板枋
Shanmen, E Facade
Architrave and flat tie-beam

山门，北立面，额枋和平板枋
木质暴露、开裂、平板枋弯曲
Shanmen, N Facade, architrave and flat tie-beam
Exposure of wood, cracking, warping of flat tie-beam

斗拱与挑檐檩
Brackets (*dougong*) and Purlins



与会乘殿一样，山门的斗拱在建筑结构上并没有很重要的作用，只是考虑了建筑美学上的完整性。斗拱与挑檐檩原来都有彩画。根据记录，1975年更换了部分的斗拱。

As in Huicheng Hall, the corbel brackets in Shanmen do not serve an important structural purpose, but are integral to the aesthetic of the building. The brackets and purlins were originally painted with a decorative motif. According to records, the brackets were all replaced in 1975.

虽然大部分挑檐檩上的地仗和彩画已经脱落，但是斗拱上的漆大部分仍然存在。至少有一根明间北面的挑檐檩被更换过。

Paint is largely extant on brackets, though purlins have lost much of their painted plaster covering. At least one purlin on the N facade center bay has been replaced.

山门，北立面，东角，斗拱、挑檐檩、檐椽、飞椽
木质暴露、开裂
Shanmen, N Facade, E corner
Brackets, purlins, rafters, flying rafters
Exposed wood, cracking

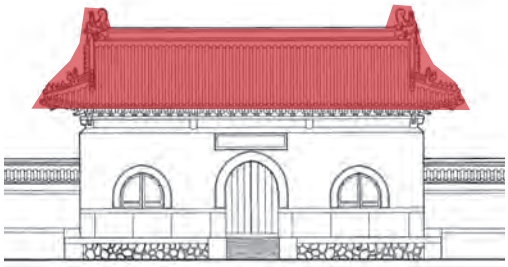
椽
Rafters

1975年更换了山门所有的椽子；其目前的保存状况良好。主椽与飞椽都刷了蓝漆，漆上仅有小量的裂缝。

Rafters were also all replaced in 1975 and remain in good condition. Both principal and flying rafters are painted blue and exhibit only minor cracking of this paint layer.

山门，北立面，东角，斗拱、挑檐檩、檐椽、飞椽
木质暴露、开裂
Shanmen, N Facade, E corner
Brackets, purlins, rafters, flying rafters
Exposed wood, cracking

屋顶构件：瓦与装饰物
Roof Elements: Tiles and Ornaments



山门及围墙上的瓦为布瓦。在1975年或更早的修缮工程中，大约很多的瓦都被更换过，但目前没有正式记录。会乘殿屋顶的小兽可能是原来的，有些瓦也可能是重复使用的。

The tiles of Shanmen, along with the enclosure wall of the site, are all unglazed. Presumably, many of these tiles were replaced as part of roof repairs undertaken in 1975 or earlier, but no official mention of this exists. As in Huicheng Hall, it may be the case that roof ornaments (i.e. animal figures) are original, and some tiles were also likely reused.

由于从地面上只能对屋顶状况作有限度地观察，因此没有详细的资料。目前可见的最严重的情形是杂草的生长，北面特别密集。北面房檐上有附近树木刮落的枝子和叶子。屋檐四周的瓦当有局部的破损。

Access to the roof was limited to visual observation from the ground, which did not allow for a detailed investigation. At present, the most serious condition visible is plant growth, which is extensive on the N facade. A nearby tree is also dropping limbs and debris on the N facade. Around the perimeter of the eave, there is localized breakage of *wa dang* (pendant end tiles).

值得注意的是，对殊像寺的古建筑每年都有一次扫陇和清除植物的工作。那时应该是详细调查屋瓦与屋顶构件最合适的时刻。

It bears noting that the site has an annual campaign of roof plant removal for historic buildings. Closer investigation of tile and roof elements may most conveniently be undertaken at that time.

山门，南立面，屋顶
植物生长
Shanmen, S Facade, roof
Biological growth

山门，南立面，屋顶
植物生长、瓦破损与部分缺失
Shanmen, S Facade, roof
Biological growth, tile breakage and partial loss

承德殊像寺山门结构稳定性分析
Analysis of Structural Stability of Shanmen at Shuxiang Temple

山门
Shanmen

1、殊像寺山门结构特征
Special Structural Features

殊像寺山门面阔三间进深一间，单檐歇山布瓦顶建筑。明间施石券门，次间施石半圆盲窗；采用抬梁式五架梁结构（照片1）。

Shanmen is three bays wide and one bay long. It has a single eave hip and gable roof with unglazed tiles. The central bay has a stone edged arched gateway and the bays on either side have semi-circle blind windows (*mangchuang*). The structure has a column-and-beam frame with a beam holding five purlins (see Fig. 1).

2、山门基础稳定性
The Stability of the Foundation

①台基表面超平

Platform Subsidence

台基结构采用上墁压面石、下用毛石砌筑台帮，内用夯土填充。对台基上表面进行超平观测，在山门四面的压面石表面，各选取2－5个观测点，如表3所示，共选取了15个点。

The platform has paved rock on the top with rubble stones on the side. The inside has been filled with rammed earth. Measurements were undertaken to determine the level of the platform. 2-5 measurement points were chosen on the stone surface with a total of 15 points altogether.

表3：山门台基上表面相对高程

Table 3: Surveying Results

	测点1 Point 1	测点2 Point 2	测点3 Point 3	测点4 Point 4	测点5 Point 5	最大高差（米） Greatest Difference (m)
南侧 S	0.937	0.842	0.829	0.815	0.791	0.146
东侧 E		0.757	0.769			0.012
西侧 W	0.339	0.313	0.313			0.026
北侧 N	0.301	0.310	0.332	0.347	0.344	0.047

注：西、南侧与东、北采用不同参照系。

Note: The west and south sides and the east and north sides use different measuring systems.

台基表面风化严重，东、西、北三面，各测点高差较小，可以断定其基本处于同一水平，没出现不均匀沉降；台基南侧东西落差较大，东南角部较低。因为东侧台基表面风化脱落严重，因此，造成东南角部较低的原因是风化还是下沉，需结合柱网超平情况进行分析(照片2)。

The surface of the platform has been severely weathered. On the eastern, western and northern sides there is very little difference in height between each of the survey points, suggesting that it is level and there is no differential settlement, which would make the platform top uneven. On the southern side there is a greater difference in the height of the east and the west ends, with the southeast corner somewhat lower. Due to the weathering of the eastern side of the platform surface, severe detachment has occurred. Thus, the causes of

the southeastern corner being lower than the others are weathering and settlement (Fig. 2).

②残缺部位分析

Analysis of Missing Components

西侧下部毛石台帮砌体部分缺失，是年久失修所致，不会对基础稳定构成影响。

东侧台基压面石表面风化严重；5厘米－8厘米，也不会对结构稳定构成影响。

前檐东次间台帮局部外鼓，其形成原因主要包括两个方面：一是内部填土被雨水浸泡膨胀；一是东南角部基础稍显下沉。

Some of the rubble on the eastern side of the platform side is missing due to long periods of neglect. However, this does not affect the stability of the foundation.

There is severe weathering of the platform copestones on the east side, resulting in 5-8cm of lost surface material. However, once again this will not affect the structural stability of the building.

Under the east bay on the south side of the platform is protruding rubble, caused by saturation of the internal earth fill with moisture and settlement of the southeast corner.

3、墙体稳定性分析
Analysis of the Stability of the Wall

①前檐东次间盲窗上部斜向裂缝一道；后檐明间门券中石下沉，上部墙体竖向裂缝一道；后檐西次间后墙盲窗中部外闪，东次间盲窗券石以上墙体中部裂缝一道，裂至额枋（照片3）。

i. There is an angled crack on top of the blind window in the east bay on the south facade of the building. The stone trim on the arched doorway in the central bay on the north facade has subsided and there is a resulting vertical crack on the upper part of the wall. On the back wall in the west bay the central section of the blind window is leaning outwards. In the east bay the central part of the wall above the blind window stone trim has cracking which goes up to the decorated tie beam (see Fig 3).

以上裂缝均由于门券或窗券变形、错位所致，属于构件性破坏，对建筑结构稳定不会产生影响。

The cracking mentioned above has been caused by the deformity of the arched door or the blind windows and the dislocation of these components. This has resulted in deterioration of these components but should not affect the overall structural stability of the building.

②西山面墙体竖向裂缝一道。该裂隙属于墙体表面抹灰自然开裂。

ii. There is a vertical crack on the west end of the south facade. This crack has naturally occurred in the plaster on the surface of the wall.

③前檐明间东侧柱外墙体沿着柱子竖向开裂。柱子轻度下沉致使柱子外包墙体开裂，目前已经稳定。

iii. On the front facade, at the east column of the center bay is a crack in the stucco that follows the column vertically. Minor subsidence of the column has caused cracking in the wall surrounding the column; however at present it seems stable.

④东墙内侧板石外闪2厘米，东侧面墙体斜向裂缝，与下部基础不均匀沉降有关，建议进行仪器观测。

iv. The upper portion of masonry of the interior east wall is leaning outwards by 2cm. On the exterior, there is angled cracking related to the uneven subsidence of the foundation. We recommend monitoring of this condition.

4、梁架稳定性
Stability of the Beam Frame (*liangjia*)

①大木构架超平数据分析
Investigation of Wooden Structural Frame

表4：山门柱网相对高程分析表

Table 4. Relative Heights of the Columns in Shanmen

	测点1 Point 1	测点2 Point 2	测点3 Point 3	测点4 Point 4	测点5 Point 5	测点6 Point 6	测点7 Point 7	最大高差（米） Greatest Difference (m)
南侧 S	5.621	5.589	5.567	5.591	5.529	5.547		0.092
东侧 E	5.516	5.546	5.538	5.621				0.105
西侧 W	4.867	4.871	4.840	4.851				0.031
北侧 N	4.806	4.798	4.815	4.812	4.843	4.846	4.871	0.073

如表4所示，西、北两侧高差较小，基本水平。

As Table 4 reveals, the west and northern sides have slight differences in their height but the columns are basically level.

南侧檐柱自西向东逐渐降低，东侧檐柱自北向南逐渐降低，结合台基表面超平情况（台基东南角部相对较低），可以断定：该区域基础出现下沉。目前是否继续发展，需要进行仪器观测。直观分析，该下沉尚不会对整体构架构成威胁。

On the southern side the eave columns are progressively lower from west to east. On the eastern side the eave columns are progressively lower from north to south. This, along with the situation on the platform surface (the southeastern corner of the platform is relatively low), shows that subsidence has occurred. Further surveying and monitoring with instruments needs to be undertaken to determine whether the problem is continuing to develop. An analysis with the naked eye suggests that differential settlement or subsidence does not presently threaten the overall structure.

②残缺部位分析　An Analysis of the Sections Missing Components

后檐额枋及平板枋中部下沉，柱头部位拔榫，明间额枋西侧拔榫3厘米；该情况是由于额枋及平板枋受压变形所致。目前，变形程度未超过构件挠度允许范围，不会产生折断性毁坏。

The decorated tie-beam (*e'fang*) of the central section of the rear facade and the plate above (*pingbanfang*) have dislocated such that the column head is pulling on the tenon: the decorated tie-beam in the central bay has pulled the tenon westwards by 3cm. The cause of this is pressure being applied to the decorated tie-beam and the plate above it which has resulted in their deformation. At present, the degree of deformity is within permissible range of deflection for these components and should not result in their failure.

西顺梁上三架梁随枋开裂，缝宽0.5厘米－1厘米；属于局部构造性损伤，不会对大木结构稳定构成影响。

The *suifang* on three longitudinal beams on the western side have 0.5- 1cm cracks; this can be regarded as localized component deterioration and should not affect the stability of the overall wooden structure.

山门大木构架整体未出现严重变形、走闪、错位等现象，基本稳定。

There has not been any major deformation, tilting/leaning or dislocation of the overall wooden framework of Shanmen.

5、结论　Conclusion

殊像寺山门整体结构相对稳定，东南角部出现下沉，下沉是否加剧，需进一步观测，现存破坏尚未形成结构性破坏。

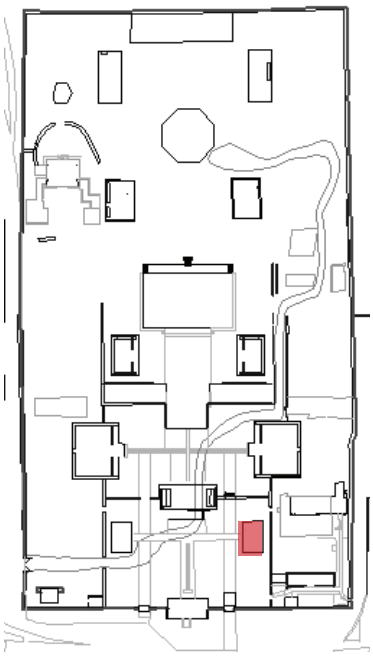
The overall structure of Shanmen is relatively stable. There has been some subsidence at the southeastern corner of the building. Further surveying is required to determine whether this problem will continue to develop in the future. The elements that have deteriorated in the structure have not caused any structural damage to the building.

1、山门梁架结构
Structural wood frame

2、山门东南角部台基
Platform, SE corner

3、山门北面，窗券上墙体开裂
N facade, cracking above stone window

钟楼，西立面
Bell Tower, W Facade

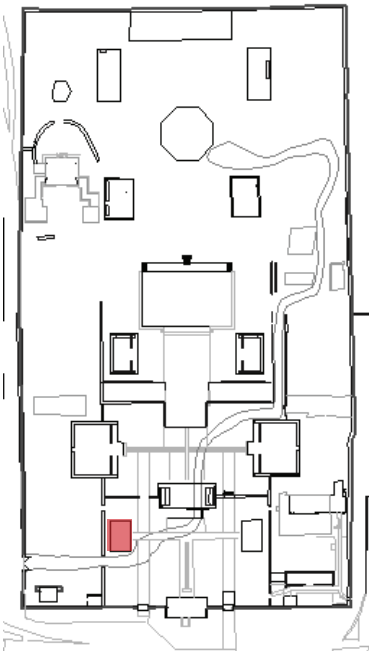


钟、鼓楼：状况评估

Bell and Drum Towers: Condition Assessment

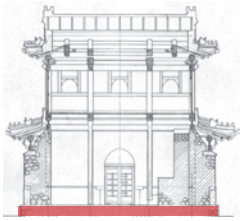
鉴于钟、鼓楼的形制和状况相似，因此无须将这两座建筑分别论述。与其它建筑一样，进行现况调查时没有脚手架的帮助，因而无法接近隐蔽的结构与屋顶。由于可以上到钟、鼓楼的上层，因而能够详细调查外墙上层油漆状况以及上、下檐中的一些构件。钟、鼓楼现状调查概述及有关的照片如下。

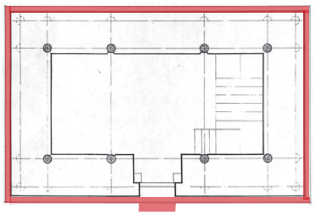
The Bell and Drum Towers are considered together in this section, given their similarity in form and design as well as the comparable conditions they share. As with other buildings, the condition survey was conducted without the aid of scaffolding or access to internal structural and roof framing members. Access to the second floor allowed for a closer inspection of upper exterior walls and paint, as well as certain components of the upper and lower eaves. A summary of condition and accompanying photos is included here.



鼓楼，东立面
Drum Tower, E Facade

台基
Platform





钟鼓楼的台基均用虎皮毛石、直立红砂岩的埋头及红砂岩的阶条石砌筑（埋头和阶条石构成上边的墙基础）。虽然两座楼未出现严重的沉降现象，但是已出现局部不均匀的沉降，尤其在钟楼的南立面。此外，钟楼东立面和鼓楼西立面的虎皮毛石墙（即两座楼的后檐）已出现严重侵蚀，虎皮毛石也出现严重缺失，其原因可能为围墙和建筑之间的排水情况不良。鼓楼台基的许多虎皮毛石已陷在地下，从地表基本上看不见。其东立面的北角存在严重的缺损，在台基的砂岩阶条石底下有更多缺失的虎皮毛石。鼓楼北立面西角的阶条石显得很新，很可能是后来干预工程加上的。

The platforms of both the Bell and Drum Towers are composed of rubble masonry (*hupi* "tiger skin") with corner upright ashlars and copestones (which form the plinth for the sill walls above) of ashlar sandstone. While neither building shows signs of substantial subsidence, localized differential settlement is present, particularly on the S facade of the Bell Tower. In addition, the E facade of the Bell Tower and the W facade of the Drum Tower (i.e. the rear facades of both buildings) exhibit severe erosion and loss of rubble masonry, presumably resulting from poor drainage between the enclosure wall and the buildings. Much of the rubble masonry in the platform of the Drum Tower is now below ground level and barely visible; the E facade, N corner exhibits serious deterioration and more missing rubble beneath the platform sandstone copestone. The W corner of the N facade of the Drum Tower also has much newer looking copestones, suggesting a later intervention.

钟楼，东立面，台基
石侵蚀与脱落的毛石
Bell Tower, E Facade, platform
Ashlar erosion and loss of rubble masonry

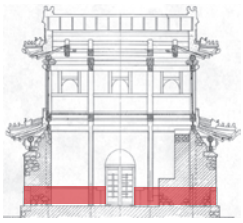
鼓楼，东立面，台阶
台阶被侵蚀有裂缝、下层台阶与展开部分被埋
Drum Tower, E Facade, steps
Erosion and cracking of steps, with partial burial of splays and lower step

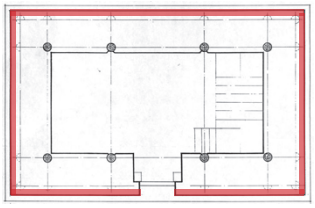
整个台基最常见的问题如下：接缝裂开，虎皮毛石在个别地方已全部缺失，砖石作表面侵蚀，不协调的填充和勾缝，在建筑上层进行干预时留下了一些表面的残渣。虽然虎皮毛石和条石的表面侵蚀是局部现象，但是两座楼的台阶和垂带的接缝都存在不同程度的侵蚀、起甲、片状剥落以及植物的生长。

The most recurrent conditions throughout the platform are: open joints, localized complete loss of rubble masonry, masonry surface erosion, incompatible fills and repointing, and surface deposits from interventions carried out above. While surface erosion of masonry rubble and ashlars is localized, it is severe in a number of areas. Stairs and side splays in both buildings show varying degrees of erosion and flaking and scaling, as well as some plant growth in joints.

钟楼，西立面，台基上
台基上有鳞片状与粉末状剥落
Bell Tower, W Facade, platform top
Scaling and powdering

墙
Sill Wall





墙与台基一样，是用虎皮毛石、直立红砂岩的埋头及砂岩的腰线石头砌筑的，原来厚而凸起的砂浆勾缝后来被各种成分不同的水泥更换过，外表很不和谐。两座楼均存在个别不同颜色的埋头和腰线石块，其损伤程度远远小于周围的石材。尽管没有有关干预工程的记录，但是这些石头可能是后来用于替换损伤程度严重的构件。因为目前两座楼已改作仓库使用，所以无法详细调查内墙，但是初步调查结果表明没有严重的损坏。

The sill walls, like the platforms, are composed of rubble masonry with upright corner ashlars and a top stringcourse of sandstone ashlars. The thick, raised mortar of the rubble masonry seems to have been largely replaced with incompatible cementitious material of varying compositions. Both buildings have isolated examples of differently colored corner and stringcourse ashlars that exhibit far less deterioration than adjacent stone, suggesting possible later replacement of severely deteriorated elements, though there is no record of such interventions. The interior sill walls were only minimally accessible due to the use of both buildings as storage, but suggest no serious deterioration.

鼓楼，北下碱， 腰线石可能为后来的干预活动所致
Drum Tower, N Facade, sill wall
Possible later intervention in stringcourse ashlar

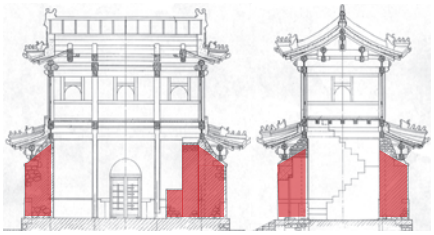
墙上最明显的问题是出现在虎皮毛石墙和条石上的侵蚀。两座楼的槛墙均存在勾缝砂浆的脱落和使用不谐调的水泥勾缝等问题。在局部地方存在表面沉积，尤其在四面的腰线条石上；鼓楼的东、西立面的槛墙呈现出局部外闪。

The principal condition visible on the sill wall is erosion of the rubble and ashlar stones. Loss of mortar and use of incompatible cementitious mortar are also evident throughout the sill walls in both buildings. Localized drips and surface deposits are visible, particularly on stringcourse ashlars on all facades. Both the E and W sill walls on the Drum Tower show localized outward bulging.

钟楼，西墙，不和谐的人工干预
Bell Tower, W Facade, sill wall
Incompatible intervention

钟楼，西墙，毛石盐分腐蚀及剥离
Bell Tower, W Facade, sill wall
Salt Fretting

砖石墙体及抹灰
Masonry Walls and Stucco/Plaster



每座楼的墙上另有一个砖石墙，墙外为一层红色抹灰，墙内抹灰上刷了一层大白。因为抹灰完整，因而无法观察到抹灰下面的砖石作。但是在钟楼个别的地方有少量抹灰已经脱落，使得我们能够看到下面由毛石砌筑的墙体。钟、鼓楼外墙的抹灰已出现开裂并且修复过，但是墙体都没有出现结构性变形，强度也没有削弱。墙上的阶条石有修复工程留下的漆和抹灰的污迹，以及表面沉积；个别石材出现局部位移，石材边角出现侵蚀。两座建筑的阶条石上随处都是用水泥重新进行勾缝。

Above the sill wall in each building sits another masonry wall covered in red stucco on the exterior and white painted plaster on the interior. The intact plaster does not allow for any thorough observation of the underlying masonry, though some small areas of loss on the Bell Tower permit limited inspection that suggests a rubble composition. None of the walls shows any acute evidence of structural deformity or weakness, though cracking and repair of the stucco are common on both buildings. Cut angled sandstone coping at the top of the masonry wall shows staining and surface deposits from paint and plaster work, as well as localized displacement and corner erosion. Cementitious repointing is also common between the tooled copestones in both buildings.

钟楼，西立面，抹灰修护
Bell Tower, W Facade, plaster repair

钟、鼓楼的外墙有红色抹灰，虽然尚未对抹灰进行过化学分析，但是从其外表及成分来看，与会乘殿和山门相似。此外，在墙身上可以清楚地看到多次的抹灰及补修。不同时期的抹灰有不同的颜色和质地，从审美的角度来看，其外观既不和谐也不完整。两座建筑的抹灰普遍存在局部空鼓和开裂现象，钟楼的南、西立面有个别地方的抹灰完全脱落了（即砖石作层以上部分的抹灰全部脱落）。

钟楼内部，墙面与储存在内的物品
Bell Tower, Interior
View of stored items and plaster

钟楼西立面，多层抹灰修护的证明，临近地区脱落
Bell Tower, W Facade
Evidence of multiple plastering campaigns, with neighboring area of loss

Exterior stucco is red in color and seems to be comparable to that of Huicheng Hall and Shanmen in terms of visual characteristics and composition. However, no analysis of the stucco from either the Bell or Drum Towers has been carried out. In addition, both buildings show clear evidence of multiple campaigns of stucco application and patching. There is great variation in the color and texture of the various intervention stuccos, resulting in an inharmonious and unfinished aesthetic for both structures. Localized detachment and cracking is common in both buildings with a few small areas of complete loss (i.e. to the masonry substrate) recorded on the S and W facades of the Bell Tower.

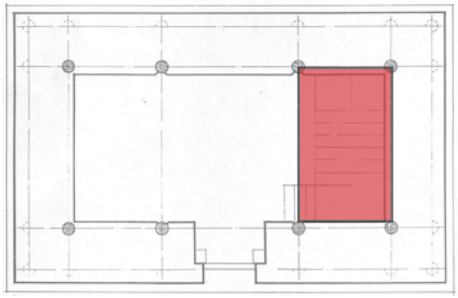
因为没有进行仔细观察与分析，目前对内墙的白色抹灰和它的成分还不

清楚。由于空气中的灰尘和污垢的积累，墙面呈灰色，并有局部的机械损伤。目前两座建筑均改为仓库，内墙抹灰将面临着进一步的恶化（钟楼内存储塑像和陈设物，鼓楼存储煤炭）。

Interior plaster is white in color and of an unknown composition, as no careful observation or analysis has been undertaken. In both buildings, the plaster is greying from accumulation of airborne dirt and dust. Localized mechanical damage is evident and the plaster is at further risk from the use of these buildings as storage (statuary and furniture in the Bell Tower and coal in the Drum Tower).

两座建筑的南立面内墙建都有通往二楼的半弯型自支撑式楼梯，楼梯由虎皮毛石砌筑，状况良好，看起来好像是原件（两座建筑的二楼原置钟、鼓各一面，鼓现已不存）。两座楼梯存在少量的开裂，表面堆积（修复二楼时所掉下来的材料），以及部分地方有水泥补修和勾缝。钟楼楼梯旁边的砖石作墙（即南立面墙和东、西立面墙的南端）没有抹灰，因而可以看到水泥勾缝的虎皮毛石。

Built into the S interior wall in each of the structures is a stone rubble masonry half-turn stair that allows access to the upper level housing the bell and drum (no longer extant), respectively. The self-supporting stairs are in good condition and seem original to the buildings. Both show some minor localized cracking, surface deposits from spillage of intervention materials used on the upper floor during work and some cementitious patching and repointing. The masonry walls adjacent to the stairs, i.e. S wall and S ends of the W and E walls, in the Bell tower are unplastered and reveal a rubble masonry with cementitious repointing.

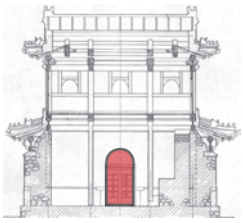


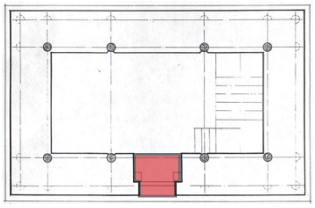
钟楼，阶梯的平面图
Bell Tower, plan view of stair

钟楼内部，南面墙梯
Bell Tower, Interior, S wall stair

鼓楼内部，南面墙阶梯
Drum Tower, Interior, S wall stair

入口和门
Entryways and Doors





钟、鼓楼均设有砂岩券门（钟楼朝西、鼓楼朝东），它们不但是两座建筑的唯一入口，也是由地面进入楼内的唯一入口。券门由柱头拱墩、拱脚、楔型拱石和拱心石组成，拱心石及柱头拱墩的外表有装饰性的雕刻。所有的楔形拱石和拱心石的边缘上都有浅浮雕装饰花纹。

The sandstone ashlar arch door surround in each building (on the W in the Bell Tower and E in the Drum Tower) provides the only access to both buildings and represents the sole opening on the ground floor. The facade of the arch, which continues through the masonry wall as a barrel vault, is composed of two impost blocks, two springers, two central voussoirs, and one keystone. The keystone and springers are ornamentally carved on their facades. All voussoirs and the keystone have a carved decorative flare that protrudes beyond the surface of the intrados.

钟楼，西面墙
入口表面的沉淀物与水泥补丁
Bell Tower, W Facade, Entryway
Surface deposits, cementitious patches

券门及其砖石作组合的结构一般说来是稳定的，保存状态良好。最突出的问题为溅落在表面的油漆痕迹，钟楼的券门还有煤留下的污渍。楔型拱石已勾过缝，钟楼的拱心石接缝南端和旁边的楔型拱石用水泥修补过。鼓楼券门的两个拱脚以及钟楼券门北面的拱脚都出现外闪。钟楼的拱心石有一条贯穿整个拱心石裂缝，这条裂痕的深度不明。

In general, the arches and their composite masonry are structurally stable and in a good state of preservation. The most prevalent conditions relate to surface deposits from dripped paint and, in the Drum Tower, from coal. Some repointing of voussoirs is evident and the Bell Tower keystone has a cementitous patch that covers its joint to the south and a portion of the adjacent voussoir. A slight outward movement from the wall is present in both springers in the Drum Tower and in the N springer of the Bell Tower entrance. A horizontal crack is present across the width of the keystone in the Drum tower, though it is unclear whether this crack continues through the thickness of the stone.

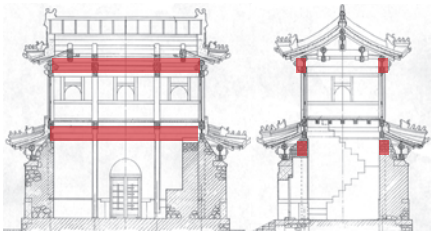
鼓楼，东面墙入口的污斑，表面的沉淀物，裂缝
Drum Tower, E Facade, Entryway
Staining, surface deposits, cracking

我们对两座建筑的门扇了解不多。门扇为木质，上有一层地仗，红漆油饰。门扇有经常开关的痕迹，大面积的机械损伤导致了油漆的局部脱落。门扇的年代不详。

Little is known about the doors, which are of wood and painted red over a preparatory plaster. They bear the signs of heavy use, primarily widespread mechanical damage resulting in localized loss of paint. The date of these doors is unknown.

钟楼入口内面
Bell Tower, Entryway interior

柱子及额枋
Columns and Architraves



钟、鼓楼的底层结构的柱子基本包藏在砖石内，因而无法进行详细调查。由于砖石墙体无严重变形，额枋也没有移位或移动，因此估计柱子是完整的，并且仍在原来的位置上。可以比较清楚看到的是上层支柱，有局部位移，但目前看来仍然稳定。

The lower level structural columns of the Bell and Drum towers are largely hidden within masonry, not allowing for extensive examination. Nonetheless, the lack of serious deformation in the masonry and dislocation or movement of the architraves suggests that columns are both intact and in their intended positions. Upper level columns are more readily visible and exhibit evidence of only minor dislocation that now appears stable.

钟楼，南面墙，西拐角残存彩画
Bell Tower, S Facade, W corner
Extant painted decoration

文献和照片表明以前对两座建筑的结构框架进行过小规模的修复工程，据估计，钟、鼓楼的上、下檐额枋基本上是原来的。总体来看，额枋的强度没有削弱的表现，同时也没有过多的应力。鼓楼西立面上檐的局部向外移动造成了支柱的移动以及旁边柱头小幅度转动。

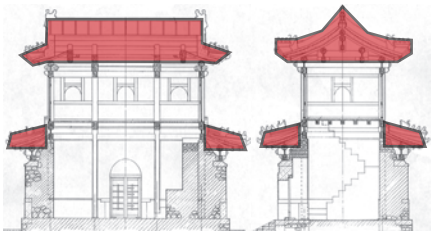
The upper and lower eave architraves of the Drum and Bell towers are thought to be largely original, since written and photographic records indicate only minor interventions to the structural frame of the buildings. In general, the architraves of both buildings show little sign of weakness or excessive stress. Localized outward movement can be seen on the Drum Tower W facade upper eave, with accompanying column movement and slight rotation of adjacent beam head.

钟楼，西面墙，上层与下层檐枋
Bell Tower, W Facade
Upper and Lower eave architraves

钟楼下檐额枋西南、西北角仍然保存原来的彩画，这是确定结构木件为清代的依据。额枋的其他构件上有一层地仗，额枋地仗表面上普遍存在水污痕迹和局部开裂等现象。钟楼上层支柱的红漆已出现大面积开裂和脆弱性。

Extant painted decoration is present only on the Bell Tower lower eave architrave NW and SW corners and provides evidence for extant Qing structural members. The remaining architrave members in both buildings are coated with a mud plaster. Prevalent surface conditions include water staining and localized cracking of plaster on architraves. Red paint on the upper level columns shows extensive cracking and friability in the Bell Tower.

鼓楼南面墙，下层檐枋，邻近构件的污斑
Drum Tower, S Facade
Lower eave architrave, staining of adjacent members



椽子、屋檐及屋顶构件
Rafters, eaves and roof elements

上个世纪八十年代初钟、鼓楼的屋檐和屋顶构件在进行修复时被更换过。据文献记录，所有椽飞望板、屋顶板、屋檐及剪边瓦均属于这个时期。经过观察之后，我们确定了上、下檐状况良好，屋顶构件很完整。两座楼屋檐和屋面的瓦片，尤其是瓦当及创兽，出现少量的破裂。悬挂在檐角的铃铛均在，但出现了锈蚀。钟、鼓楼的檐上和屋顶上都有植物生长。

Eave and roof elements were largely replaced as part of the early 1980s campaign of interventions on the Bell and Drum towers. According to records, all flying rafters, roof boarding, eave and tile edging date to that period. On inspection, the upper and lower eaves appear to be in good condition, with all roofing members intact. Eaves and roofs of both buildings only show minimal tile breakage and loss, particularly of end tiles and hip corner animals. All corner eave bells are present, though showing signs of oxidation. Evidence of plant growth is present on the eaves and roof of both the Bell and Drum towers.

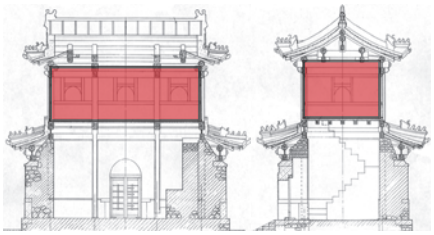
钟楼，东北角，上层与下层屋檐的构架
Bell Tower, NE corner
Upper and Lower eave framing

钟楼，北面墙，下层屋檐上的脊
Bell Tower, N Facade
Lower eave hip ridge

钟楼，东立面，1979年
Bell Tower, E Facade, 1979, L. von Falkenhausen

鼓楼，东立面，上层屋檐
Drum Tower, E Facade, Upper eave

上层-室内外
Upper Chamber - exterior and interior



钟、鼓楼的上层是两座建筑中最重要的部分，分别存贮寺庙日常生活中使用的钟和鼓。上个世纪八十年代初在两座楼的修复过程中，曾对上层构件进行过大规模的修复。现今仅存挂在钟楼中的铜钟。

The upper chambers of the Bell and Drum towers are the most important of the buildings, as it is here that the bell and drum, respectively, were sounded as part of the daily life of the monastic community at the temple. The upper levels of both buildings were largely restored as part of the intervention campaign in the early 1980s. Today, only the bell survives and hangs in the center of the upper chamber in the Bell Tower.

鼓楼，东立面上层，漆的裂缝及脱落。
Drum Tower, N Facade, Upper level
Paint cracking and loss

上层楼外侧木板上的油漆已出现大规模的开裂及部分脱落。两座楼内都有燕子窝，地板上有大量的鸟粪，屋梁上有污点。

The exterior paint on the wood paneling exhibits widespread cracking and some resulting loss. Use of the interior for nesting of swallows has resulted in large amounts of droppings on the floor and staining of roof beams in both buildings.

钟楼，上层屋梁上鸟的排泄物与鸟窝
Bell Tower, Upper Chamber
Deposits from bird droppings, with visible nest

钟楼，上层屋内鸟的排泄物
Bell Tower, Upper Chamber
Deposits from bird droppings

基址
RUINS

殊像寺大部分的建筑目前只留下了基址。原有的二十二座建筑（不包括僧房），有十七座大部分或全部的地表结构都已失落。尽管这些原建筑只有极少的遗存，且其原始建造状况不易被理解，但它们仍是组成寺庙整体布局和设计不可缺少的部分。殊像寺的基址可分为两大类：

The majority of structures at Shuxiang Temple survive only as ruins. Of the original 22 buildings (excluding the monks' quarters), 17 of them have lost most or all of their superstructure. These vestiges of former buildings remain integral to the design and layout of the temple, despite the fact that they have minimal extant fabric and are not easily interpreted. The ruins can be divided into 2 main categories:

1、被自然土覆盖的基址。2003年十一月对这类基址进行了发掘，在完成考古报告的编写之后，于2004年对它们进行了回填。这类基址包括清凉楼、香林室组、灶房、上房、值房等建筑群组。其发掘的主要目的是为了确定建筑的原始基址，查明现存基址的数量和状况，并对现存遗物进行记录与调查。因为这些基址和残留建筑构件被自然土和野生植物掩埋，因此需要进行清理发掘来加以了解。这些基址保存的主要建筑部分为本地鹦鹉岩所建造，石材损坏严重，保留的部分多为建筑台基、墁地砖等，清凉楼保存了部分墙体。详细报告见卷一，《殊像寺干预史》，附件3、附件4。

   Ruins with buried footings that were excavated in November 2003 and reburied in 2004, following documentation and survey. These are Qingliang Building, Xianglin Complex, and the kitchen/dining/entry halls, which were excavated to determine their original footprints, ascertain the condition and amount of surviving fabric, and allow for documentation and surveying of the extant remains. The original building footprint and architectural remains of these ruins were covered with soil and vegetation and required excavation to be understood. These ruins, constructed mainly of local, often severely deteriorated, tuff stone (*yingwuyan*), consist primarily of platforms, paving, and, in the case of Qingliang, portions of sill walls. See, in Vol. 1, *History of Interventions*, Appendices 3 and 4 for detailed information on excavation and reburial of these ruins.

2、保存原状的裸露基址（即基址尚未被大量的自然封土覆盖）。这类建筑遗存看得见，摸的着，保存了其历史面貌。这些没有进行考古发掘的基址在殊像寺占大多数，而其现存原物，包括台基、柱顶石、槛墙和部分砖石墙，大部分明显可见。这些建筑的台基和墙体多为砂岩建造，而墙体上身的构造则为砖墙或毛石墙。虽然系统性的状况评估还有待进行，但初步调查和历史档案记录显示了这些基址状况稳定。

   Ruins that have always been exposed (i.e. never substantially obscured by ground cover) with their extant fabric and footprints largely accessible, remain in their historic condition. These ruins, which constitute the majority of buildings on-site, have not been subject to excavations and their extant fabric, including platforms and column bases, sill walls and portions of masonry walls are mostly visible. In these structures, the platforms and sill walls are primarily ashlar sandstone, often with some extant brick or rubble masonry above the sill walls. Although systematic condition assessments are required, preliminary examination and the documented history of exposure suggest the extant fabric of these ruins is stable.

虽然此次研究的重点不在这些遗存上，但是2005年春季对整个遗址进行调查时，我们对残存的地表基址状况做了记录。不同于其它章节的建筑现状评估，本章绘制了每座建筑的状况及其基本情况的示意图。这些建筑包括馔香、演梵、指峰、面月、雪净、吉晖、慧喜和天王殿。虽然这些

基址的基座都是按照比例测绘，但是，砖石作以及建筑结构的位移和残缺状况是手画的，这些手绘图纸并没有按照比例。

Although full attention has not been given to the latter group of structures with ruins above ground, the general condition of their extant fabric was recorded as part of the site survey work in Spring 2005. Unlike the rest of the Architectural Condition Assessment, this section will present a collection of sketches of each of the side buildings (Zhuanxiang, Yanfan, Zhifeng, Mianyue, Yunlai, Xuejing, Jihui, Huixi) and Tianwang Hall, on which the current state of preservation and some basic condition information have been recorded. The footprints of the ruins are to scale in these drawings, but the detailed stone sketches and efforts to record deformation in extant fabric as well as areas of loss were conducted freehand and usually without additional cumulative measurements.

总体来讲，这些基址的大部分地上建筑已不存在，留下的部分多少不一。其保存状态和维护情况似乎与其所在的位置有关，寺内南半部较大的建筑（配殿）保存了较多的建筑原件，其设置也比保存较少的、位于北部的小殿堂更易理解。这些基址常常保留着墙体中部的砂岩陡板和腰线石，或在原址，或已位移和失落。位移和失落的石材多为植物生长所致。配殿内大部分的砖石作、铺地石及柱顶石或已缺失，或埋在地里。天王殿的情况独特，其铺地石不但保存下来，且较完整。遗憾的是，这些铺地石出现了严重的表层剥落和分解，以至造成表面脱落。车辆的来往加速了石材的损坏进程。但是寺院后面的配殿大都保存了殿内原有的须弥座，同时，与会乘殿以南的较大的配殿相比，所有这些小配殿都至少保留了部分的毛石槛墙以及部分山墙，山墙墙体上的抹灰也有部分存留。在这些基址里，天王殿保留了最多的历史建件部分，包括基本完整的西山墙和内外墙上的抹灰。

Generally, these ruins exhibit loss of most of their superstructure and retain varying amounts of fabric above ground. The general state of preservation and level of maintenance of the ruins seems to relate to their location, such that the larger side buildings in the S of the site retain more fabric and their plans more easily interpreted than those of the smaller halls in the N of the temple. Sandstone ashlars used in sill wall construction are often extant, either in situ or displaced and fallen, often due to vegetation. In the side buildings, stone and brick or tile paving is largely lost or occluded (buried), as are many column bases. Tianwang Hall is unique because of its largely visible extant stone pavers. These extant pavers exhibit severe scaling, disintegration, and resulting loss of surface material, which has been exacerbated by vehicular traffic. The side halls in the rear of the temple do, however, preserve much of their carved sandstone *sumeru* pedestals, presumably once the bases for statuary no longer in situ. In addition, all of these smaller side halls preserve at least a portion of the masonry with areas of extant stucco or plaster above the sill walls, in contrast to the larger side halls to the S of Huicheng Hall. Tianwang Hall is the sole ruin to conserve the majority of its historic masonry, including the largely intact W gable wall with plaster and stucco.

多数基址的保存状况给人们提供了一个了解清代建筑工艺技术和材料的难得的机会。槛墙垂直石条之间可以看到当作填充材料的毛石或白灰。槛墙上的砖作遗存表明了建筑的墙面不仅用石头，还用砖。在露天的榻板、腰线石上可以看到卡住木头构件的榫眼。所有的木构件（柱子或枋、檩）都已无存，很可能被用于现代的建筑。详情见卷二，《殊像寺古建筑及工艺》和《建筑材料》前言之后的建筑构件、建筑以及建筑材料。

Many of the ruins, because of their current state, provide a unique look into construction techniques and materials of the period. Rough rubble fill and/or lime is often visible between the upright stone ashlars of the sill walls. Partial masonry walls atop sill walls reveal the use of brick as often as stone rubble for these architectural enclosures. Exposed sill wall stringers allow for observation of carved mortises for wooden elements. None of the wooden framing components (i.e. columns and beams) are extant in any of these ruins, most likely reused in modern times. See the *Shuxiang Temple Architecture and Techniques* and

Building Materials after the Introduction for more information on architectural elements, their construction, and component materials.

尽管这些基址遗存的数量有限，到处都可以看到后期干预的痕迹；这些干预很可能是加固工程的一部分。最常见的干预工程包括：更换榻板、腰线石、有水泥和石灰补块，通常在槛墙里或墙上。新的榻板、腰线石和填充物因其位置、材料很容易就能看出来（譬如青砂岩），在某些情况下，这些干预工程挡住或占据了支柱的原始位置，因此，可以确定它们不是该建筑的原始构件。云来殿基址就是重新利用不恰当的一个特殊实例：为了修复宝相阁，在云来殿的地基附近修建了一个石砌的石灰池，破坏了该殿的地基。

Despite the limited amount of extant fabric in most of these ruins, later interventions, presumably part of stabilization efforts, are visible throughout. Common interventions include replacement of sill wall stringers, and introduction of cementitious and lime fills and caps, usually in or on the sill walls. New stringers and fills are often easily identified because of their location and material (for example, the whitish-green sandstone); in some cases these interventions block or fill the historic location of columns, evidence that they are not original to the buildings. Yunlai Hall has a unique example of inappropriate reuse: a lime pit dug into its foundation and enforced with brick masonry for the restoration work of Baoxiang Pavilion.

基址遗存：平面图和照片
Architectural Ruins: Site Plan and Images

慧喜殿址，从东北边看
Huixi Hall, from NE

吉晖殿址，从西北边看
Jihui Hall, from NW

雪净殿址，从东南边看
Xuejing Hall, from NE

云来殿址，从东北边看
Yunlai Hall, from NE

面月殿址，从东边看
Mianyue Hall, from E

指峰殿址，朝东
Zhifeng Hall, looking E

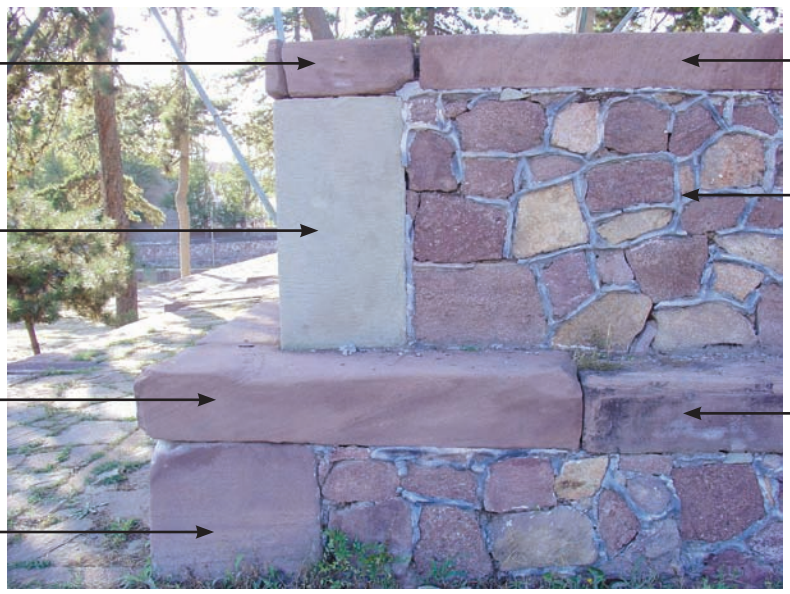
演梵堂址，从东边看
Yanfan Hall, from E

馔香堂址，从西南边看
Zhuanxiang Hall, from NW

天王殿址，前景，朝南看
Tianwang Hall remains, in foreground, looking S

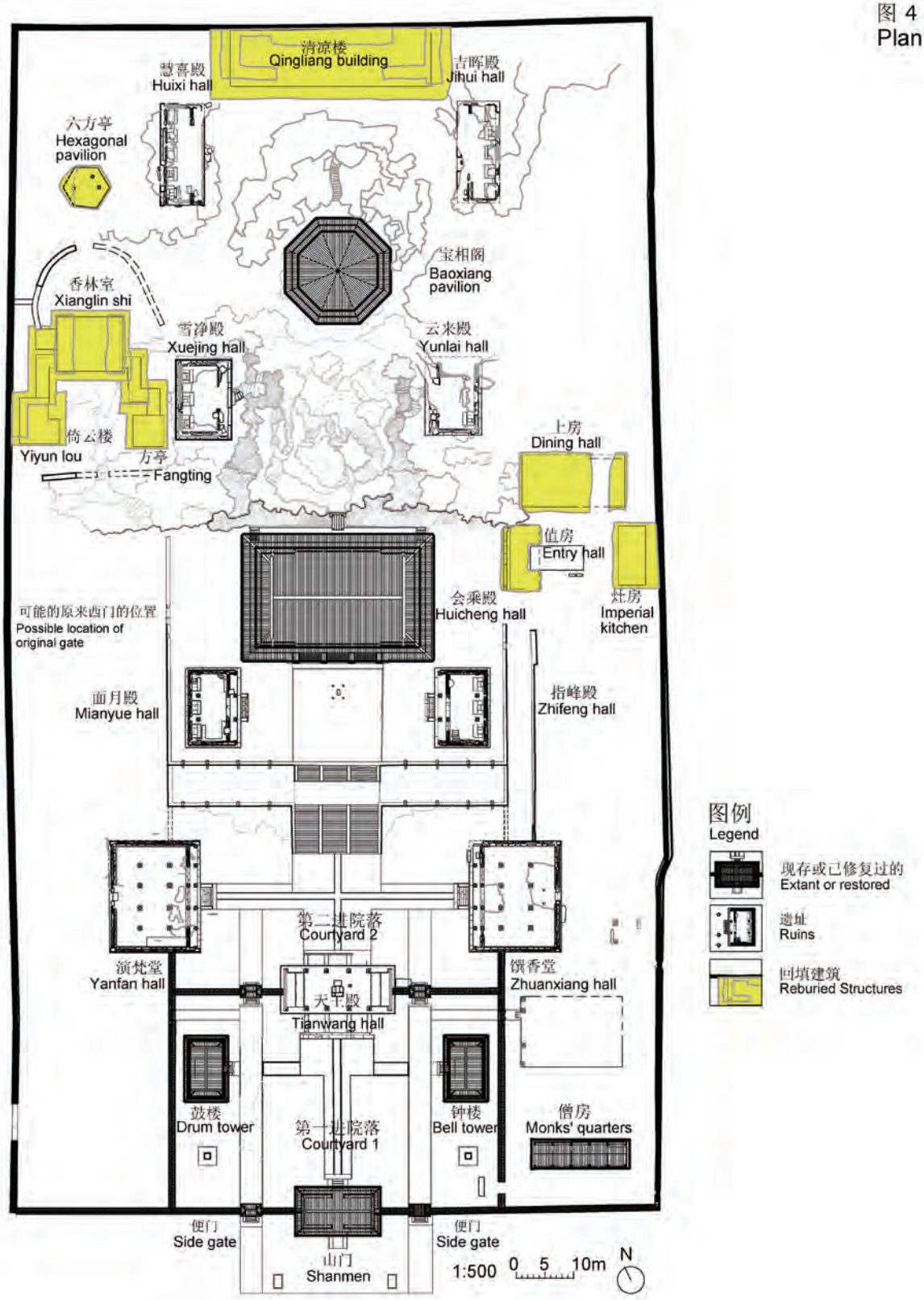
遗址建筑构件说明图
Architectural Ruins Masonry Components

慧喜殿址，建筑石材构件
Huixi Hall, stone architectural components



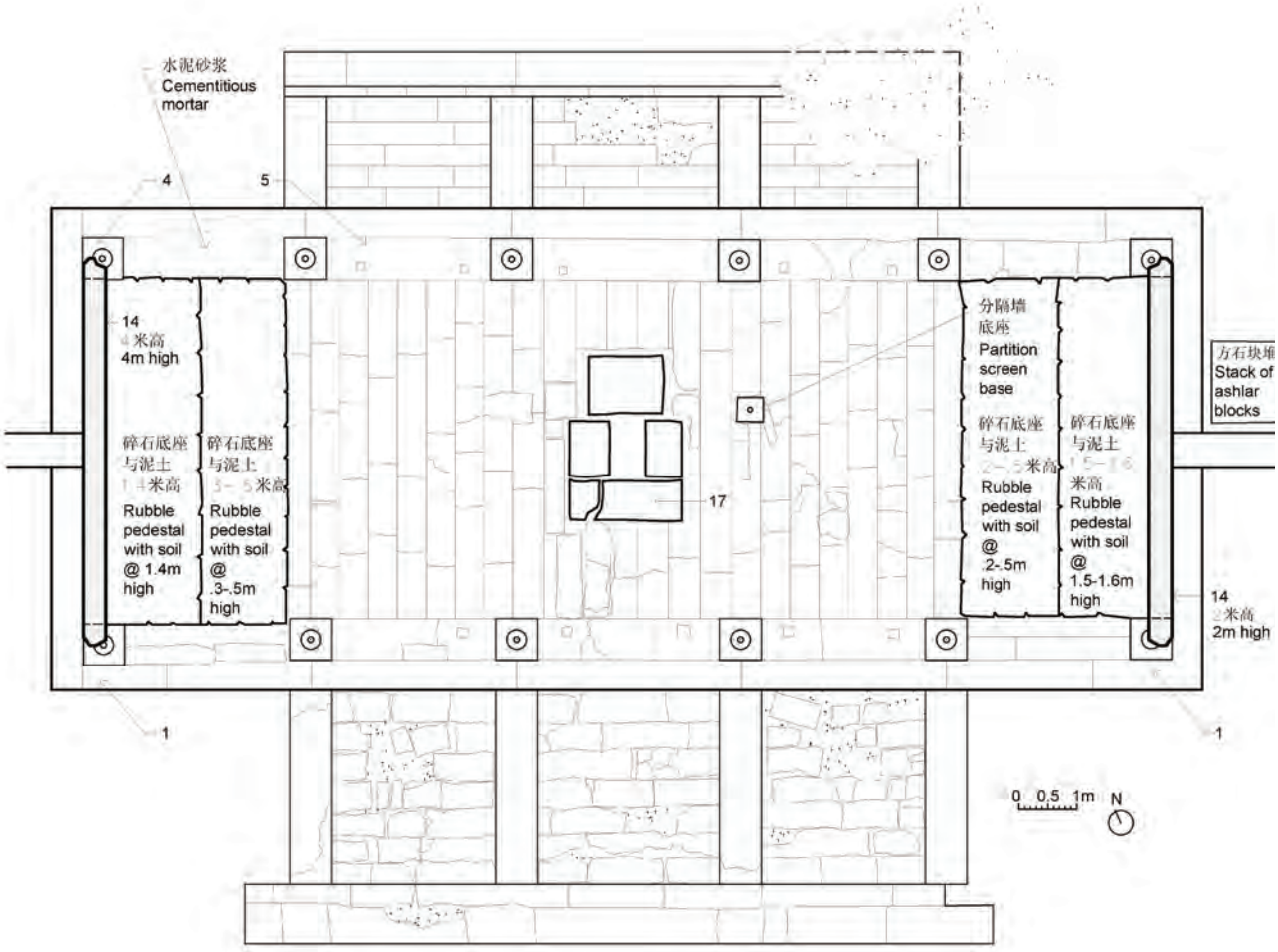
指峰殿址，建筑石材构件
Zhifeng Hall, stone architectural components

图 4
Plan 4



现存建筑、建筑遗址、回填建筑
Extant, Ruined, and Reburied Buildings

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
   11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

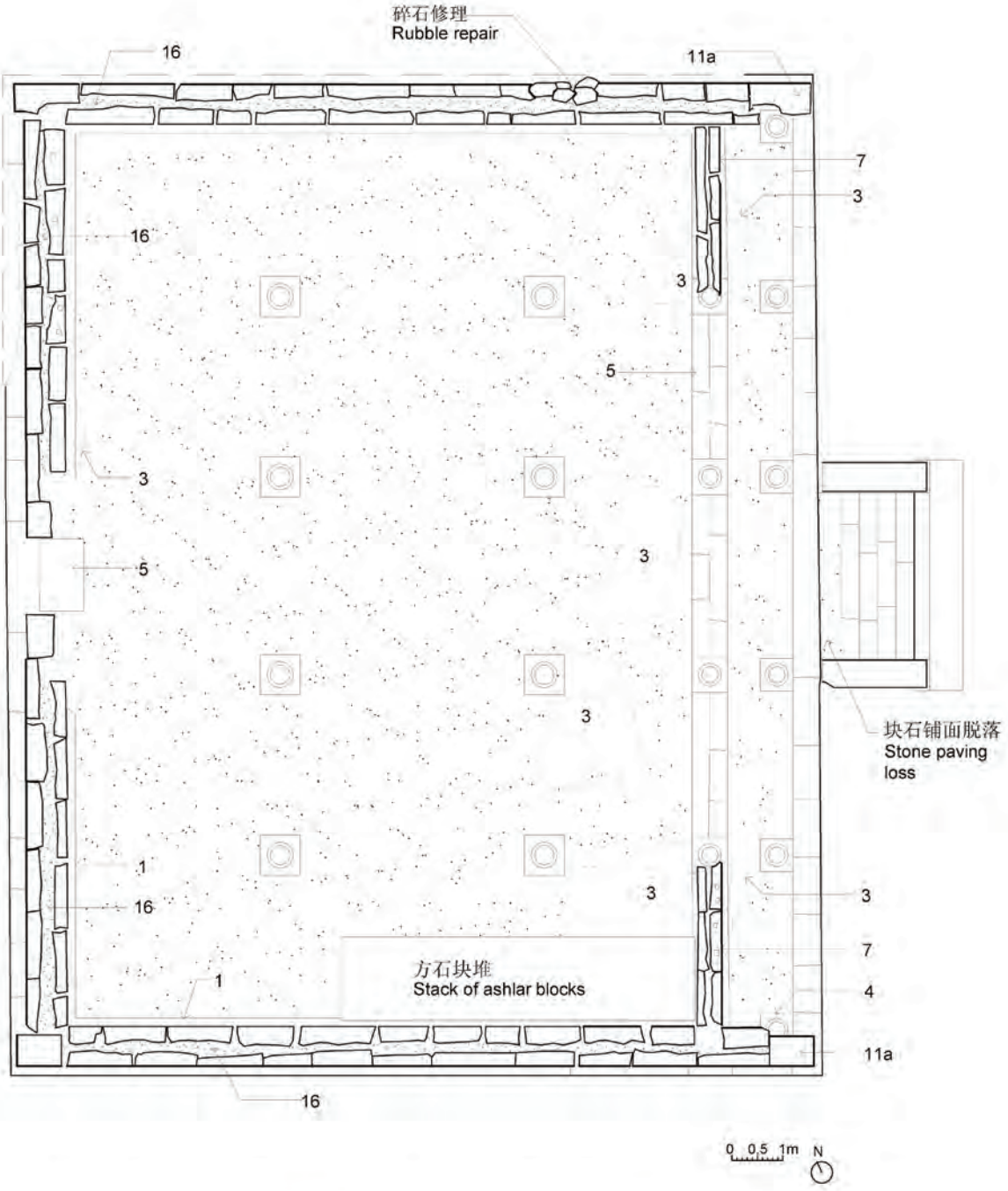
台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 槛垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 榻板石、腰线石
11a 压面石
12 移位榻板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

Tianwang Hall Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
   11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

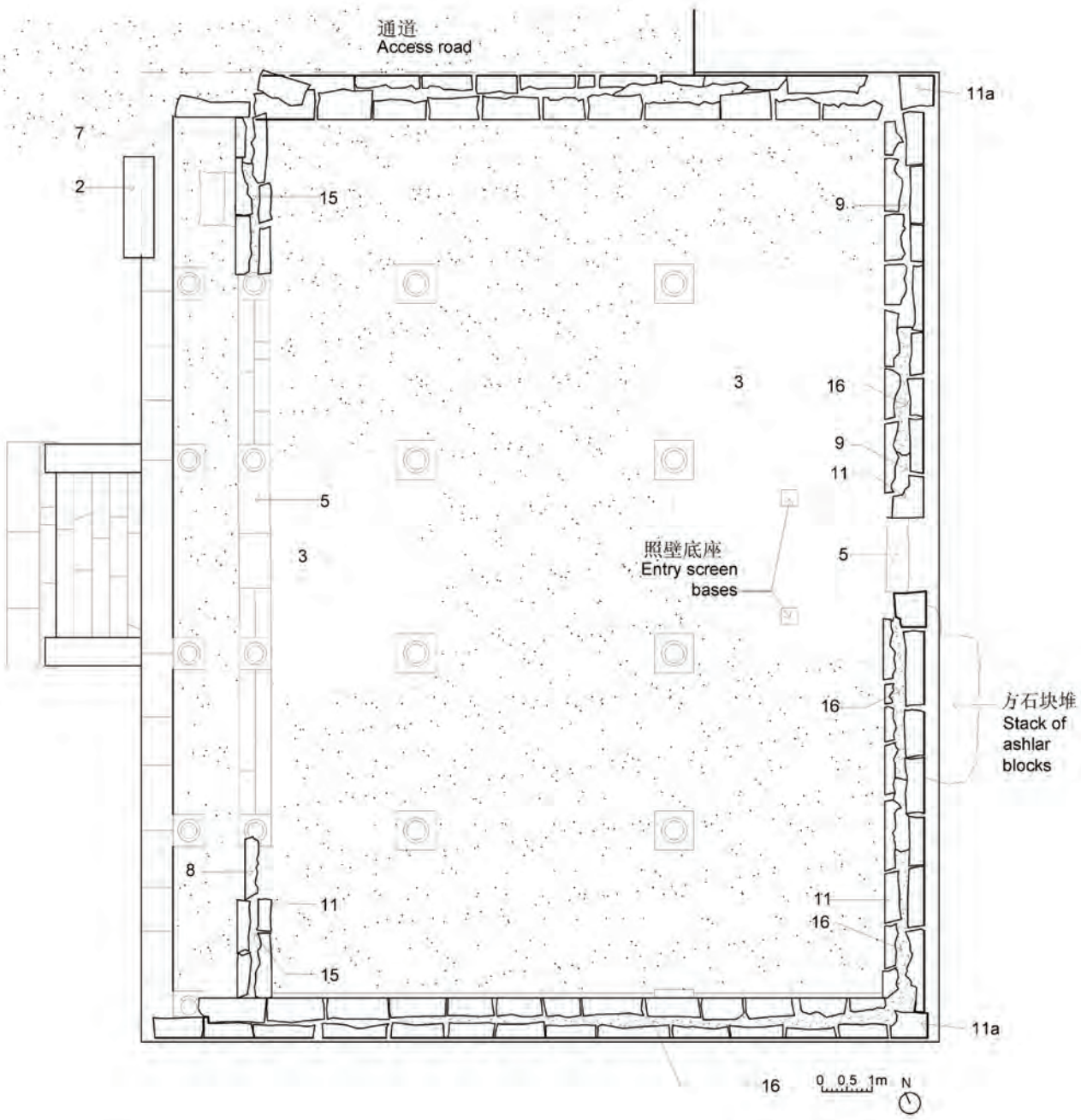
台基
台基条石
移位台基条石
砖墁地
柱顶石
槛垫石
栏土

槛墙、山墙下碱
条石
角柱石
移位条石
毛石
倒塌的毛石
榻板石、腰线石
压面石
移位榻板石、腰线石
砖砌槛墙、山墙上部
毛石槛墙、山墙上部
灰泥填料
水泥填料

特征
石须弥座
移位须弥座石块
被泥土与植物覆盖

演梵堂建筑遗址平面图
Yanfan Hall Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
    11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

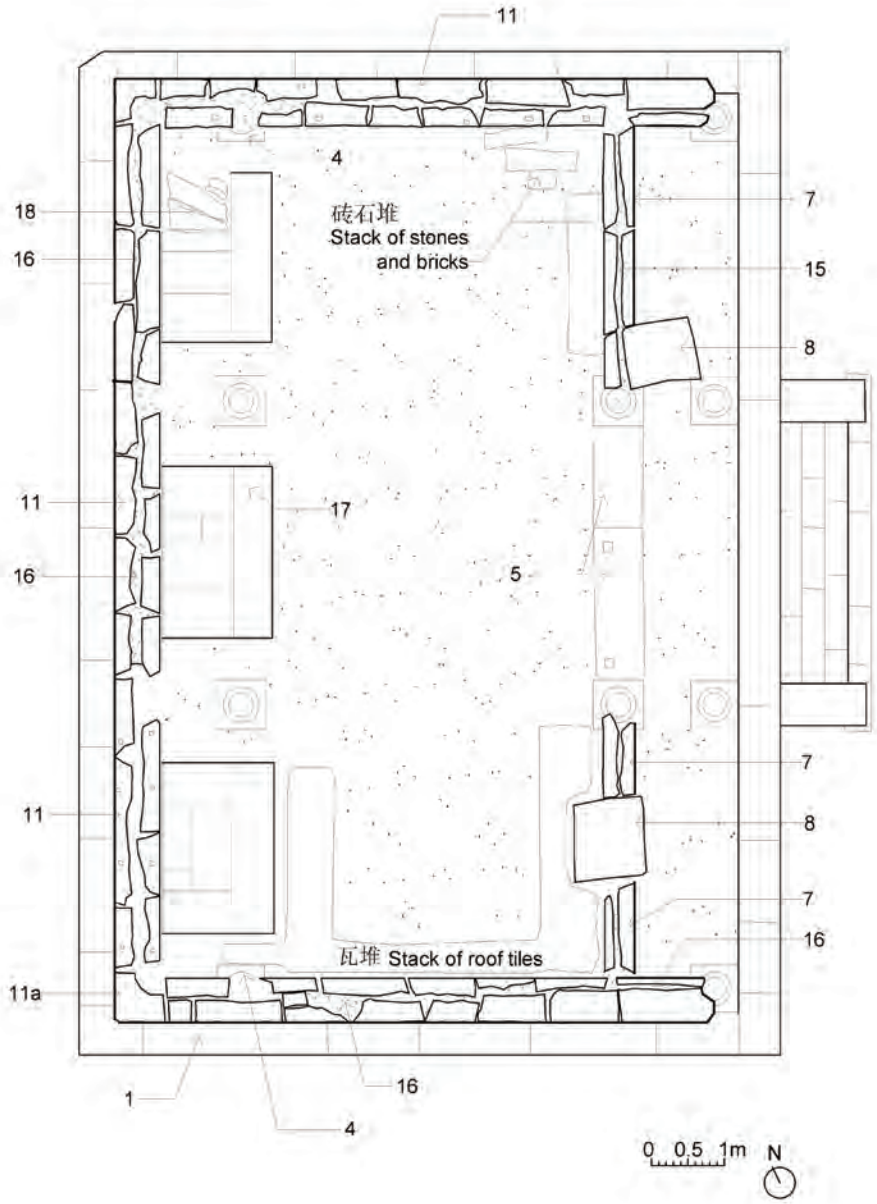
台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 槛垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 榻板石、腰线石
11a 压面石
12 移位榻板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

馔香堂建筑遗址平面图
Zhuanxiang Hall Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
    11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

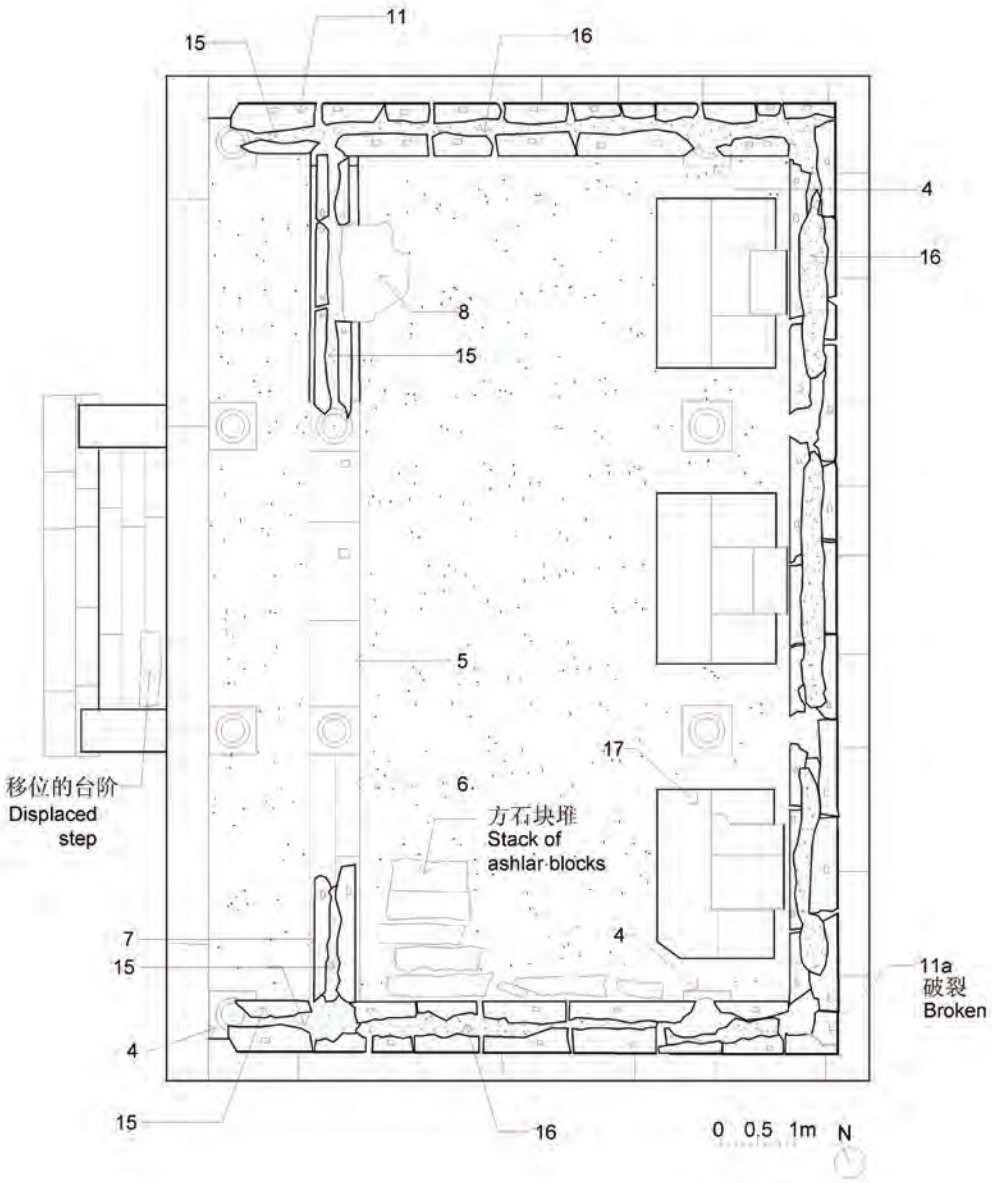
台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 檻垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 榻板石、腰线石
11a 压面石
12 移位榻板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

面月殿建筑遗址平面图
Mianyue Dian Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
   11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

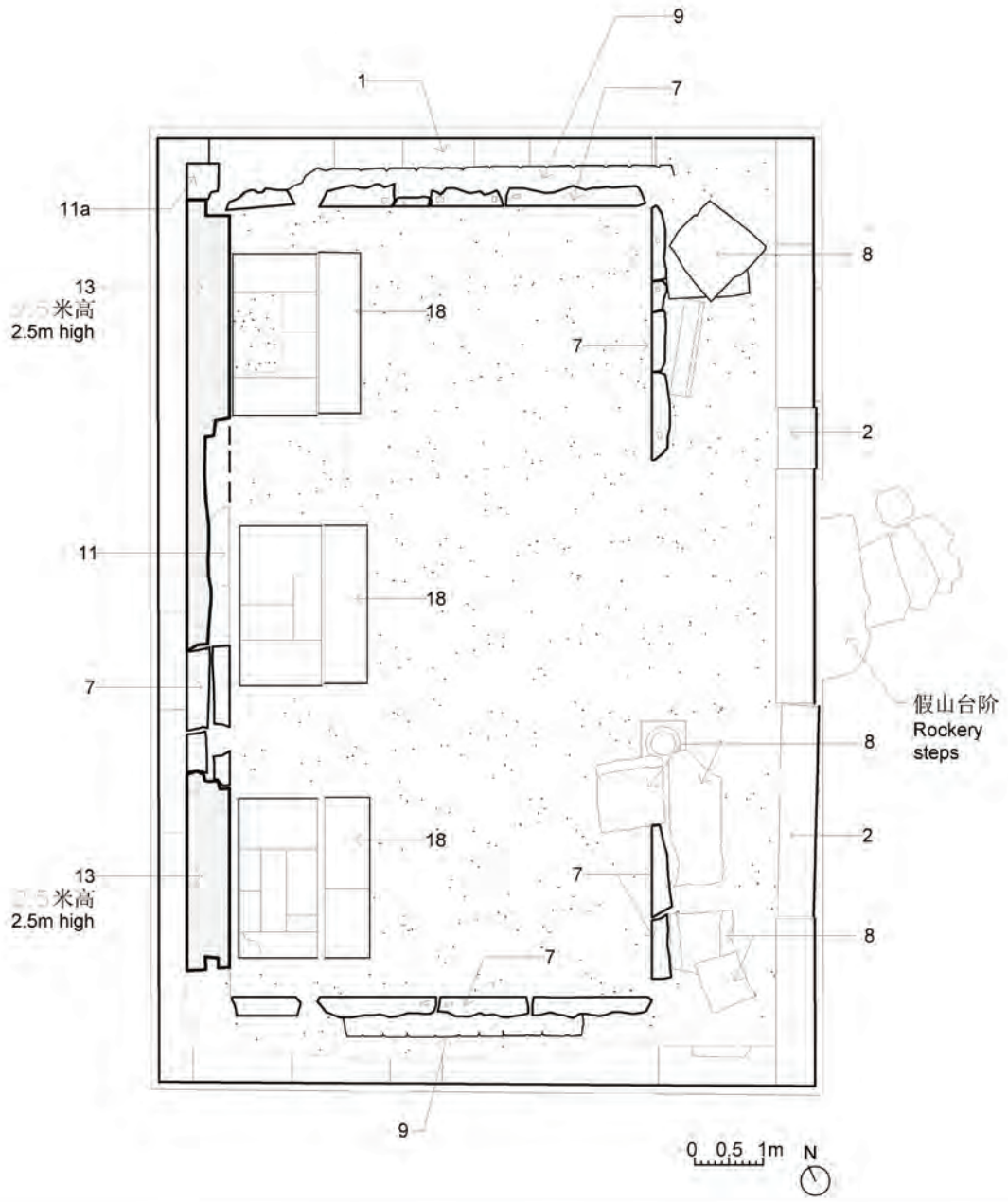
台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 槛垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 榻板石、腰线石
11a 压面石
12 移位榻板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

指峰殿建筑遗址平面图
Zhifeng Dian Ruin Plan

2006年1月
January 2005



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry

10. Collapsed rubble masonry
11. Stringer(s)
    11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

台基
1. 台基条石
2. 移位台基条石
3. 砖墁地
4. 柱顶石
5. 槛垫石
6. 栏土

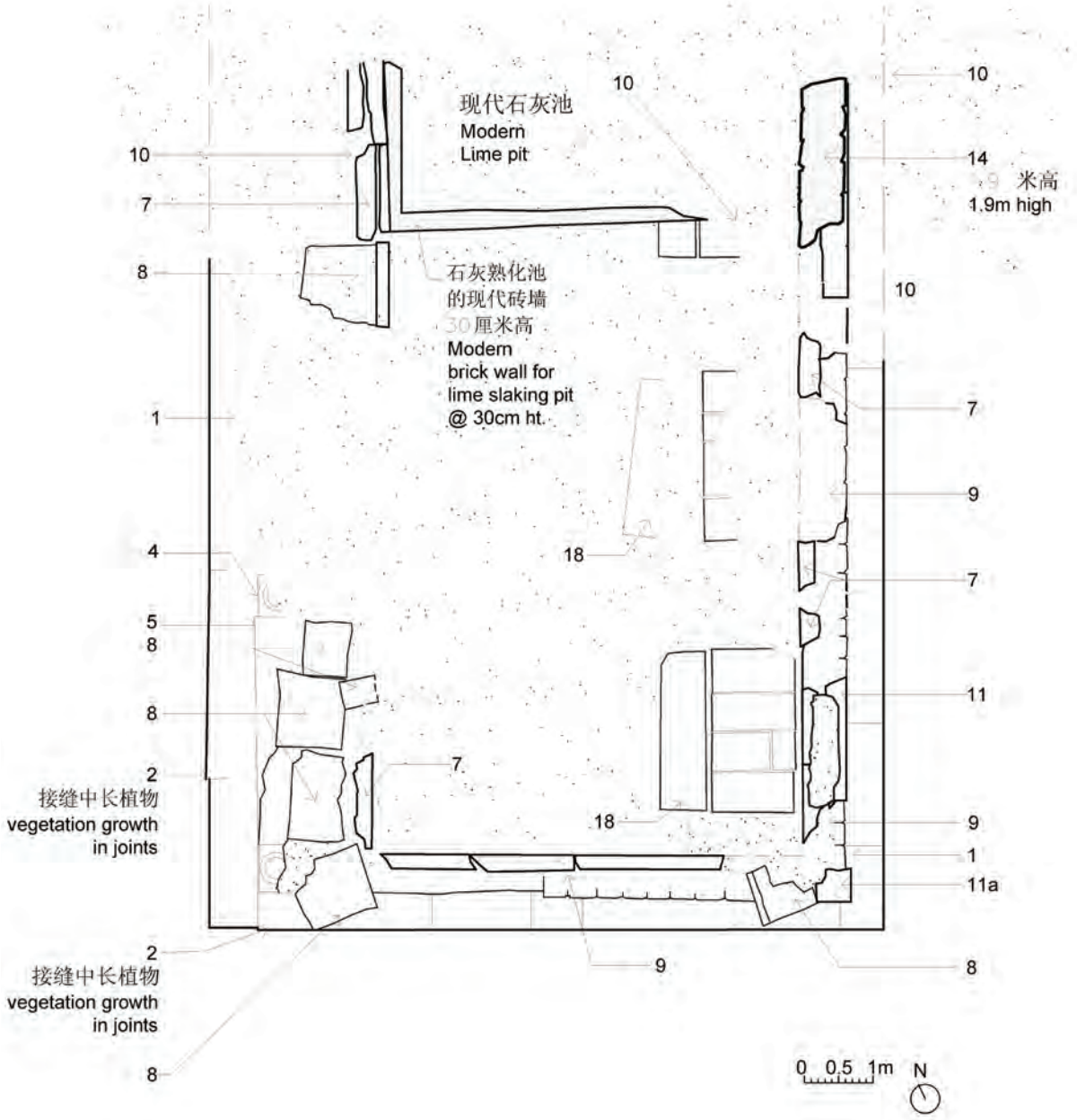
槛墙、山墙下碱
7. 条石
7a. 角柱石
8. 移位条石
9. 毛石

10. 倒塌的毛石
11. 榻板石、腰线石
11a. 压面石
12. 移位榻板石、腰线石
13. 砖砌槛墙、山墙上部
14. 毛石槛墙、山墙上部
15. 灰泥填料
16. 水泥填料

特征
17. 石须弥座
18. 移位须弥座石块
被泥土与植物覆盖

雪净殿建筑遗址平面图
Xuejing Dian Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
    11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

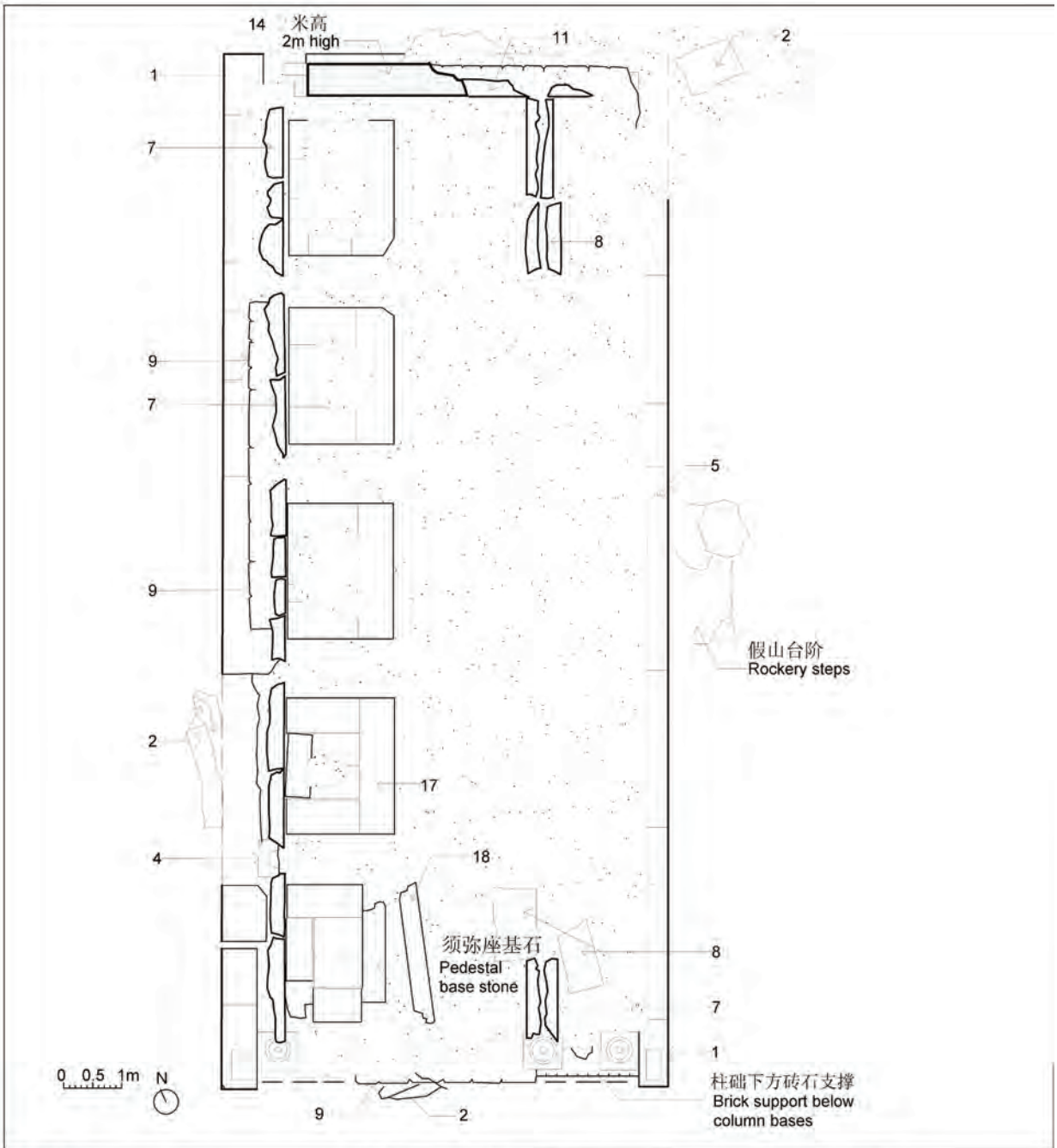
台基
台基条石
移位台基条石
砖墁地
柱顶石
槛垫石
栏土

槛墙、山墙下碱
条石
角柱石
移位条石
毛石
倒塌的毛石
榻板石、腰线石
压面石
移位榻板石、腰线石
砖砌槛墙、山墙上部
毛石槛墙、山墙上部
灰泥填料
水泥填料

特征
石须弥座
移位须弥座石块
被泥土与植物覆盖

云来殿建筑遗址平面图
Yunlai Dian Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

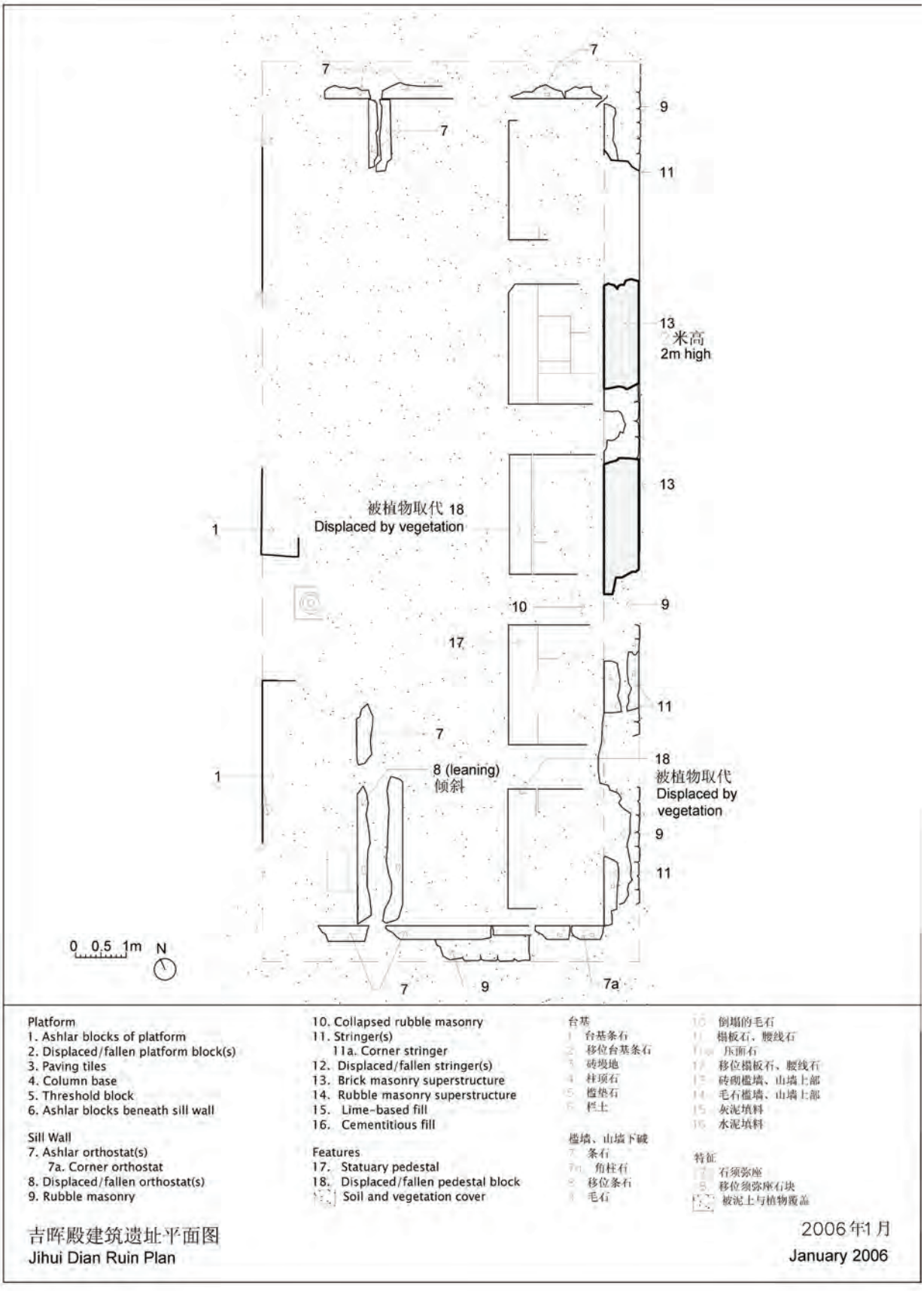
台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 槛垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 牖板石、腰线石
11a 压面石
12 移位槛板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

慧喜殿建筑遗址平面图
Huixi Dian Ruin Plan

2006年1月
January 2006



Platform
1. Ashlar blocks of platform
2. Displaced/fallen platform block(s)
3. Paving tiles
4. Column base
5. Threshold block
6. Ashlar blocks beneath sill wall

Sill Wall
7. Ashlar orthostat(s)
   7a. Corner orthostat
8. Displaced/fallen orthostat(s)
9. Rubble masonry
10. Collapsed rubble masonry
11. Stringer(s)
   11a. Corner stringer
12. Displaced/fallen stringer(s)
13. Brick masonry superstructure
14. Rubble masonry superstructure
15. Lime-based fill
16. Cementitious fill

Features
17. Statuary pedestal
18. Displaced/fallen pedestal block
Soil and vegetation cover

台基
1 台基条石
2 移位台基条石
3 砖墁地
4 柱顶石
5 槛垫石
6 栏土

槛墙、山墙下碱
7 条石
7a 角柱石
8 移位条石
9 毛石
10 倒塌的毛石
11 榻板石，腰线石
11a 压面石
12 移位榻板石、腰线石
13 砖砌槛墙、山墙上部
14 毛石槛墙、山墙上部
15 灰泥填料
16 水泥填料

特征
17 石须弥座
18 移位须弥座石块
被泥土与植物覆盖

吉暉殿建筑遗址平面图
Jihui Dian Ruin Plan

2006年1月
January 2006

基址遗存照片
Architectural Ruins Images

天王殿址，残存的西墙和抹灰
Tianwang Hall, extant W wall with plaster

天王殿址，须弥座，朝东看
Tianwang Hall, *sumeru* pedestal, looking E

天王殿址，南垂带，铺墁
Tianwang Hall, S ramp, paving

演梵堂址，朝西南看
Yanfan Hall, looking SW

演梵堂址，北下碱墙和干预工程使用的石材，前景为柱顶石
Yanfan Hall, N sill wall with intervention stone, column base in foreground

馔香堂址，朝东南看
Zhuanxiang Hall, looking SE

馔香堂址，朝南看，可见一部分垂带和柱顶石
Zhuanxiang Hall, looking S, areas of extant paving and column bases

基址遗存照片
Architectural Ruins Images

面月殿址，堆积的瓦
Mianyue Hall, stacked tile

面月殿址，朝西看
Mianyue Hall, looking W

指峰殿址，须弥座
Zhifeng Hall, *sumeru* pedestal

指峰殿址，须弥座
Zhifeng Hall, *sumeru* pedestal

指峰殿址，立砌红砂岩和白灰膏
Zhifeng Hall, red sandstone ashlars with white mortar

雪净殿址，朝南看
Xuejing Hall, looking S

雪净殿址，朝东北看
Xuejing Hall, looking NE

雪净殿址，位移条石
Xuejing Hall, fallen ashlar blocks

基址遗存照片
Architectural Ruins Images

云来殿址，东侧尚存的毛石墙
Yunlai Hall, E extant portion of rubble masonry wall

云来殿址，石灰池（后来干预的工程）
Yunlai Hall, lime pit (later intervention)

慧喜殿址，朝西南看
Huixi Hall, looking SW

慧喜殿址，南侧尚存的部分毛石墙
Huixi Hall, N side extant portion of rubble wall

慧喜殿址，西侧，台基和槛墙残存的部分
Huixi Hall, W side, platform and extant portion of sill wall

吉晖殿址，朝东南看
Jihui Hall, looking SE

吉晖殿址，残存的红砂岩须弥座
Jihui Hall, extant red sandstone *sumeru* pedestals

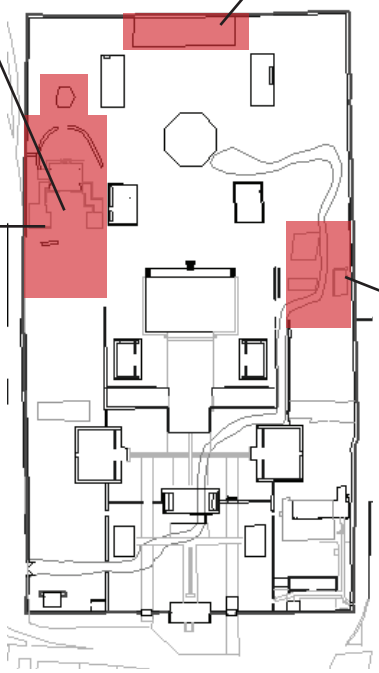
吉晖殿址，残存的毛石墙的部分
Jihui Hall, extant portion of rubble wall

被发掘过的基址遗存
Excavated Ruins

香林室建筑群遗址，南侧
Xianglin Complex site, S side

清凉楼，从东边看
Qingliang Building, seen from E

香林室建筑群遗址，南侧
Xianglin Complex site, S side



灶房，朝南看
Imperial kitchen, seen from N

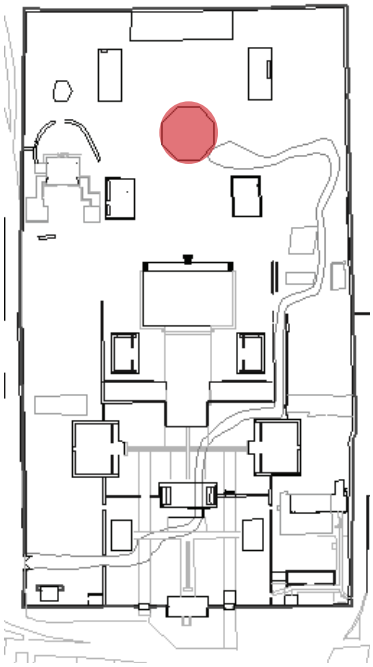
已挖掘的遗址

这些遗址在倒塌之后逐渐地被埋没了。 2003年秋天，对这三处地方包括8栋建筑与无数的园林设施进行挖掘。被挖掘出来的清凉楼与香林室基址，主要是凝灰岩质并且有不同程度的开裂与裂隙。表面覆盖层较薄的地方裂隙发展的最严重。2004年12月在这些地方进行回填是对构件保护及避免发生进一步的残损作出努力。请参看第一册历史上的干预，附录3与4 有关挖掘与回填的资料。

Excavated Ruins

These ruins were buried gradually after their collapse. In the autumn of 2003, these three areas, encompassing eight buildings and numerous garden features were excavated. The excavated footings of Qingliang Building and the Xianglin Complex are primarily of tuff and exhibited varying degrees of cracking and fissuring; areas of shallow burial had the most severe fissuring. These areas were reburied in December 2004 in an effort to protect the fabric and prevent further deterioration. See Vol.1, *History of Interventions*, Appendices 3 and 4 for information on the excavation and reburial of these ruins.

宝相阁，西南立面
Baoxiang Pavilion, SW Facade



宝相阁，西北立面
Baoxiang Pavilion, NW Facade

宝相阁

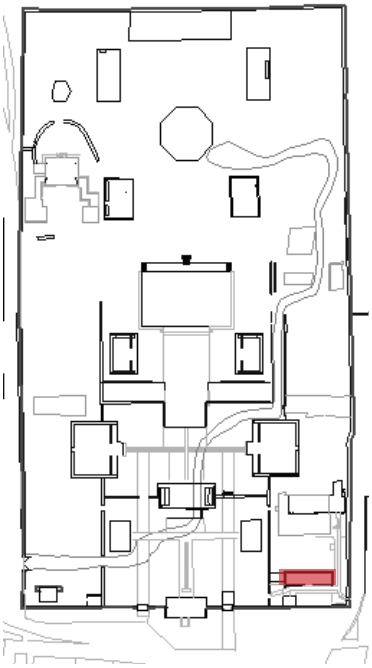
宝相阁在1997年－2002年进行了修复（详见卷一，《殊像寺干预史》附件2)。修复使用了部分原有落架保护大木（主要是梁枋、柱子），斗拱旧件主要用在东西南北四个正面，角梁、檩条、椽飞、装修及全部瓦件均为后补配。阁内重新塑造的文殊像利用了旧有的塑像残块，并且修补了石质须弥座；须弥座台面万字串枝西蕃莲多为后来按原样雕刻修补。修复过的建筑石基已经出现裂缝与表面粉化，地仗与画层出现裂缝，漆已变色，窗子的玻璃已破碎。

Baoxiang Pavilion

Baoxiang Pavilion was restored from 1997 to 2002 (see a restoration report in Vol. 1, *History of Interventions*, Appendix 2). Some of the original wooden frame components were reused (e.g. beams, columns) and old bracket components were used on the primary facades (east, west, north, and south); corner beams, purlins, and rafters were repaired and all tiles were replaced. The statuary was restored (incorporating the few extant pieces); the stone pedestal was repaired and carved in the original pattern. The restored building already exhibits cracking and surface powdering of its stone foundation, plaster and paint cracking, paint color change, and breakage of window glass.

僧房，朝东南看
Monks' quarters, looking SE

僧房，屋顶上植物生长
Monks' quarters, plant growth on roof



僧房，室内，墙面抹灰，目前为牲口圈
Monks' quarters, interior, extant plaster and barn use

僧房

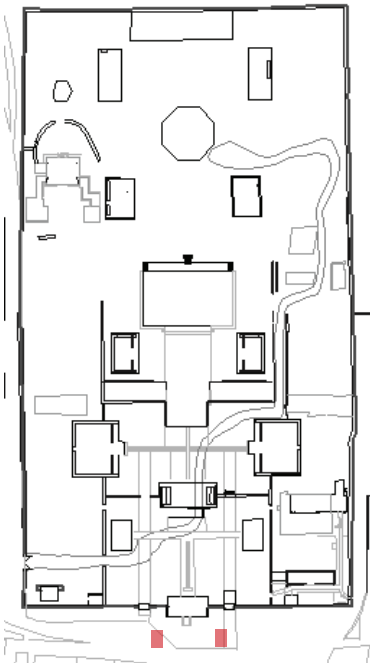
现存僧房为殊像寺内喇嘛居址的唯一实例。该房破旧不堪；为一座面宽五间，进深一间，毛石砌墙的建筑物。由于该房冬天用作牲口圈，因而面临着极大的危险。目前难以确定该建筑的完整性，仅就肉眼观察，可以看到东墙上明显的水泥勾缝，以及遍布整座建筑的后期干预工程使用的现代红砖。该房内墙上有抹灰，内外均有木门，对其年代没有做进一步的考察。

Monks' Quarters

The monks' quarters represent the only extant example of what would have originally been a number of buildings meant to house the lamas resident at Shuxiang Temple. The rubble masonry five-bay wide by one-bay deep structure is currently in a serious state of disrepair and remains at great risk, given its frequent use as a barn for animals during the winter. It is difficult to determine the degree of integrity of the structure, given visible cementitious mortar infills on the E facade and modern red-colored fired brick interventions throughout the building. An extant interior earthen plaster is visible, as are wooden doors on the interior and exterior, but no investigation into the composition or age of these materials has been carried out.

西侧石狮子，东侧面
West stone lion, E side

西侧石狮子，涂写
West stone lion, graffito



东侧石狮子，东侧面
East stone lion, east side

石狮子，须弥座，侵蚀、开裂
Stone lion, *sumeru* pedestal
Erosion, cracking

石狮子

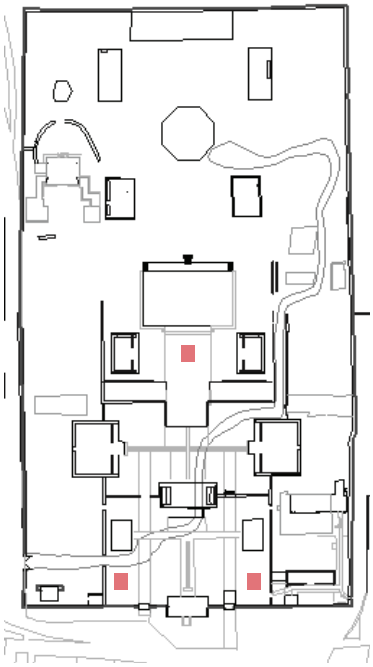
山门前东西两边各有一雄一雌、用鹦鹉岩雕刻的石狮子。狮子蹲坐在须弥座上，保存基本完整。须弥座下部可见风化及剥蚀痕迹，并有多处裂隙；石狮头部表面多处开裂，部分缺失；一只前额上有胡乱的涂写。狮身及须弥座有多处的机械损伤。现设有金属保护栏杆。

Stone Lions

A pair of tuff lions, one male and one female, sits in front of Shanmen, each on a stylized *sumeru* pedestal, in relatively good condition. The pedestals exhibit erosion and cracking; the heads show surface cracking and partial loss; one of the lions bears a graffito on its forehead. Both the bodies and bases show mechanical damage. Currently, there is a metal fence protecting each lion.

第一进院落，东幢杆座
First Courtyard, E banner pole base

第一进院落，西幢杆座
First Courtyard, W banner pole base



会乘殿前，供座
Huicheng Hall, front terrace, altar

会乘殿前，供座
Huicheng Hall, front terrace, altar

幢杆座及室外石供座

第一进院落的幢杆座保存完整，外表局部风化，幢杆已不存。

会乘殿前有五座石供座，边缘破损，并有侵蚀和部分缺失。

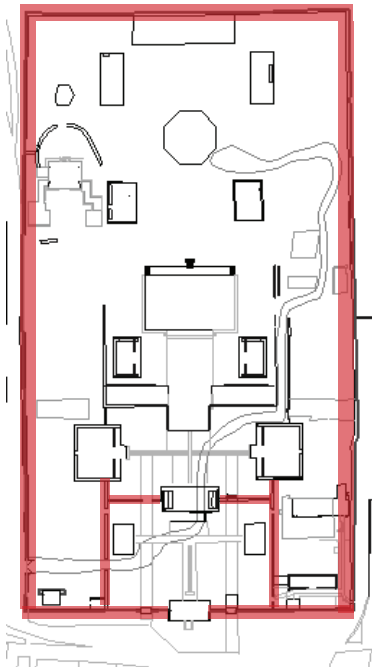
Banner Pole Bases and Exterior Stone Altars

The banner pole bases in Courtyard 1 are generally in good condition, with some surface erosion. The banner poles are no longer extant.

In front of Huicheng Hall are five carved tuff stone altars, often with edge damage, erosion, and partial loss.

围墙，东南便门
Perimeter wall, SE side gate

围墙，南侧，内部
Perimeter wall, south side, interior



围墙及便门

围墙于1982年重新修复，历史照片记录了该项工程。该项工程采用了边清理边砌筑的做法。东西围墙为毛石砌筑，不抹灰，馒头顶抹水泥灰。南侧围墙为虎皮石墙下碱，条石腰线，上身毛石砌筑抹饰红灰，青砖冰盘檐，上覆灰瓦。现南侧围墙、天王殿两侧腰墙以及第一进院钟鼓楼后内院墙均被修复。第二进院及以后院落院墙存基址，未被修复。修复宝相阁时，为便于运料在四号区西侧隔墙开了一个豁口，东侧隔墙的便门加宽。

山门、天王殿两侧的墙体上各对称设有 2 座便门，门基、下碱用条石砌筑，毛石上身外饰红灰，青砖屋檐、灰瓦歇山屋顶，实榻板门。以上诸项在1982年进行了修缮。现围墙保存完好，有污迹，并有抹灰开裂。外面的便门长期关闭，已不使用。

Perimeter and Enclosure Walls, Side Gates

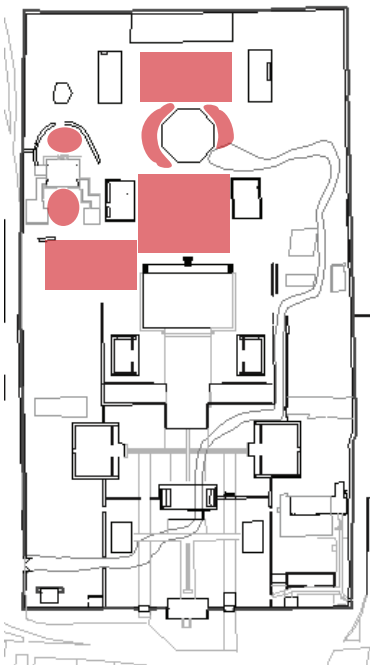
The perimeter wall of the site was rebuilt in 1982 and historic photographs document the work, which involved clearing the site and reconstructing. The east, west, and rear portions of the wall were constructed of rubble masonry, without stucco, and cement mortar and coping. In the south, the perimeter wall is constructed of “tiger skin” masonry on the bottom, covered with one course of horizontally laid ashlars, and the remainder of the wall constructed with rubble masonry, coated with red-colored stucco. Courses of rounded grey brick top the wall, followed by eaves of grey tile. The current south wall and the interior enclosure walls of Courtyard 1 were all also restored. The enclosure walls of Courtyard 2 and the rear courtyard had extant foundations at the time of restoration, but were not rebuilt. During the work on Baoxiang Pavilion, an opening was made in the west perimeter wall of Area 4 and the doorway on the east enclosure wall was widened for transport of materials.

The walls on either side of Shanmen and Tianwang Hall have side gates, the platform and base wall of which are constructed of ashlars, with rubble masonry above, covered with red-colored stucco, and grey brick courses and eaves with grey tile. These were also restored in 1982. The walls are generally in good condition, but exhibit some staining and plaster cracking. The external gates are not used and remain closed.

宝相阁前假山，南侧
Rockery in front of Baoxiang Pavilion, S side

会乘殿后假山，西侧
Rockery behind Huicheng Hall,
W side

香林室前假山，南侧
Rockery in front of Xianglin Complex,
S side



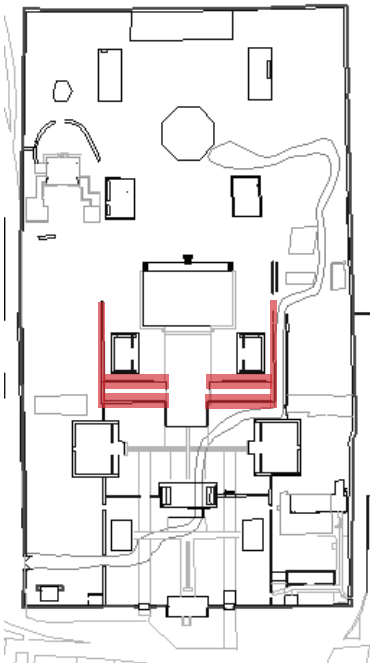
假山

主要存在于会乘殿护坡墙前、会乘殿后、宝相阁四周及香林室院内。假山主要用当地产的不规则沉积岩、火山岩、砂岩等叠砌，以宝相阁前的假山最为珍贵，有山洞、登山道路等与四周建筑相通。此处假山基本上保存了原状，但叠石多处松动不稳，局部被用水泥砂浆修补过。其它的假山多仍被土覆盖，未作考古清理，情况不明。见卷一，《殊像寺简述》，附件3。

Rockeries

The rockeries are located in front of the retaining wall of Huicheng Hall, behind Huicheng Hall, all around Baoxiang Pavilion and in the Xianglin Complex. The rockery is made from irregularly shaped pieces of sedimentary rock, volcanic rock and sandstone, which have been stacked. The outstanding rockery in the temple complex is the one in front of Baoxiang Pavilion. There are culverts and pathways throughout the rockery that link up on the four sides of the building. This rockery has been largely preserved in its entirety, however some of the rocks have become loose and are no longer stable. Certain areas have been repaired using cement. Most of the other rockeries are now largely buried and there has been no archaeological investigation to determine their exact perimeters. See Vol. 1, *Description of Shuxiang Temple*, Appendix 3 for more information on the rockeries.

月台护坡墙，西侧
Terrace retaining wall, W side



月台护坡墙，东侧
Terrace retaining wall, E side

月台护坡墙，南立面，东侧
Terrace retaining wall, S Facade, E side

会乘殿前月台护坡墙

毛石砌筑勾缝，顶部压面条石，并设有石质挑头。原压面石以上有带顶的石砌女墙，现仅存个别转角、端部石构件。护坡墙目前保存较好，无明显破损，但由于顶面防水失效，雨水渗入台面从墙上部渗出，墙体膨胀造成破坏。有些部位有新加的灰泥与石块。

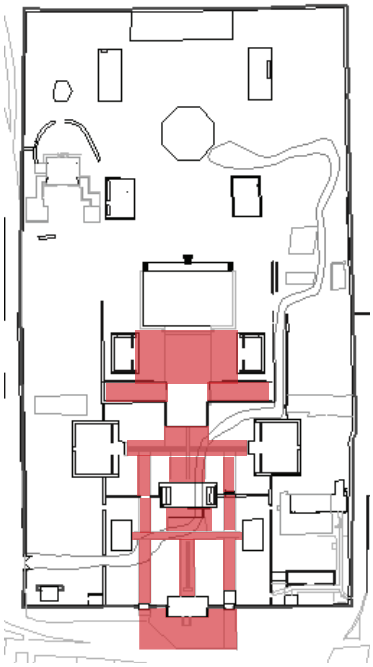
Retaining Wall of the Terrace of Huicheng Hall

The retaining walls are constructed of rubble masonry with raised mortar. The top of each wall is finished in ashlar with carved stone scuppers. The original top surface has a small stone parapet of which only portions of the corner and end stones are extant. The retaining wall is in good condition with few signs of deterioration. However, the surface coping is no longer completely effective in preventing moisture infiltration and parts of the wall show resulting swelling. There are areas of modern intervention mortar and stone replacement.

演梵堂前铺墁
Paving in front of Yanfan Hall

指峰殿前铺墁
Paving in front of Zhifeng Hall

第二进院落铺墁
Second Courtyard Paving



第一进院落铺墁，新铺的冰裂纹铺墁
First Courtyard Paving, new crazy paving

院落铺墁

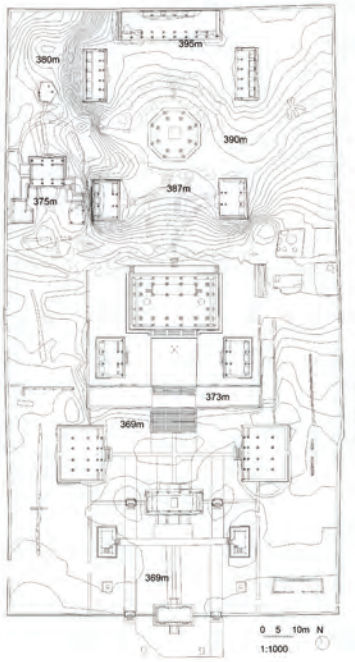
寺院中间的院落原有种类不同的砂岩铺墁。会乘殿前的月台、第一进和第二进院落用规则块石铺墁，其它部位片石铺墁（冰裂纹）。因为石材种类不同，所以墁地片石有不同程度的分解或开裂，石缝间杂草丛生。第一进院落道路近期重新铺墁，水泥砂浆勾缝了。山门前地面为红砂岩条石铺墁，保存尚可，但机动车辆通行停放对地面造成损害。

Courtyard Paving

The courtyards were originally paved with sandstone of different varieties. The terrace in front of Huicheng Hall, Courtyard 1, and Courtyard 2 were paved with regularly set square stone, with areas of crazy paving. Given the variety of stones used and the type of paving, differing degrees of disintegration and cracking of the pavement are evident. Plant growth (grass) is also often present in spaces between pavers. Courtyard 1 was repaved in 2002 using white sand and cement. The pavement made from red sandstone ashlars in front of Shanmen is well preserved, though portions have been subjected to vehicular traffic and show related deterioration.

山门东边的出水口
Shanmen, E side drainage hole

会乘殿月台挑头
Huicheng Hall Terrace scupper



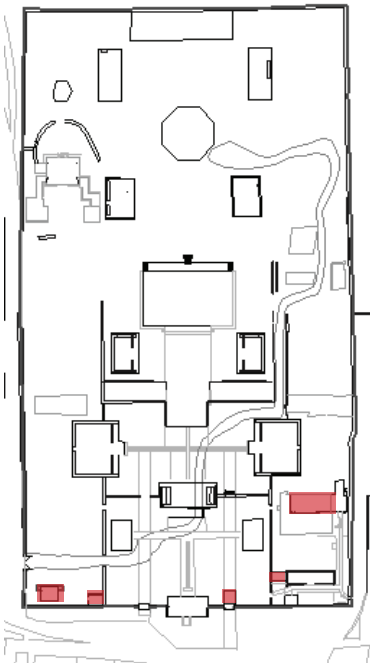
院落排水

排水利用自然地势由北向南从山门两侧的水口排出。在天王殿两侧隔墙上设有出水口，会乘殿、面月殿和指峰殿都在月台上设有红砂岩挑头，把水排到下层月台和第一进院落。在会乘殿高台上沿矮墙设有挑头。寺院后面的雨水利用山石高差汇集到会乘殿后的槽沟内向东院排除。寺院两侧的原始排水沟槽现已无存，不过该寺倾斜的地形将水自然引到了寺院南端，并从那里的沟槽排出。土积聚和基址最近回填所造成的地形变化很可能已减小原来排水的效益。

Courtyard Drainage

The natural falling grade of the terrain from north to south is the basis for site drainage; drain water is evacuated from within the site through openings on either side of Shanmen. Water discharge points are also present on either side of the enclosure walls of Tianwang Hall; the terrace retaining walls for Huicheng, Mianyue and Zhifeng Halls have inset carved red sandstone scuppers evacuating onto the lower terrace and into courtyard 1. The graded terrain at the rear of the temple and drainage channels in the central rockery lead water from the N into a trough behind Huicheng Hall that discharges out into the eastern courtyard. Original drainage along the sides of the temple is no longer evident, though the incline generally allows for rainwater to flow naturally down to the southern end of the temple and be routed to drainage channels there. Altered topography due to accumulation of soil and recent reburial has likely diminished the effectiveness of original drainage.

管理办公室和僧房后面
Caretaker's building and monks' quarters behind



厕所
Toilet

第一进院落，山门东边，新盖房屋
First courtyard, E of Shanmen, new building

现代建筑

东院僧房后面有新式砖房3间，为殊像寺管理办公用房。僧房西侧有一个新建的狗窝。此外在第一进院落的东南角靠围墙东门有一间小砖房。西侧院落西南角设灰砖简易厕所，厕所对面靠围墙有一间收、焚垃圾的砖砌处所。

Modern Buildings

Behind the monks' quarters in the E side courtyard is a modern three-bay brick structure used as an office by the site managers . A recently constructed dog kennel lies adjacent to the monks' quarters on the W. In the SE corner of courtyard 1 is a small brick masonry single-chambered building constructed adjacent to the perimeter wall at the E side gate. An outhouse with two chambers has been constructed of grey brick in the SW corner of the temple, and a small brick structure for trash collection and burning lies opposite, adjacent to the perimeter wall.