

complex manner, and an ensemble of buildings was constructed centered on the donjon. The castle was not composed solely of defensive facilities but included the residences of the castle lord and his chief retainers. Located as it was, near a plain, the feudal castle now required additional fortifications. Stone walls developed, moats (*hori*) were dug, and earthworks added. Around these castles developed CASTLE TOWNS (*jōka machi*). The castle became not just a defensive facility but the administrative and economic center of its region. The architecture and lavish interior decorations of the castle symbolized the castle lord's authority.

The rise of the castle. The military hegemons ODA NOBUNAGA and TOYOTOMI HIDEYOSHI were responsible for major developments in castle architecture. Between 1576 and 1579, Nobunaga constructed the central part of an enormous castle project at Azuchi in what is now Shiga Prefecture. According to a recent study, AZUCHI CASTLE had a seven-storied tower which rose to a height of 32.5 meters (105 ft) above the top of the stone foundation walls and 46 meters (151 ft) including the stone foundation walls. The first or ground floor was approximately 19 meters (63 ft) square and set in the middle of an area defined by the interior walls of the stone foundation. This floor was in effect a cellar (J: *anakura* or *ishikura*). A Buddhist stupa stood in the center of an open space that extended upward some 19 meters from the ground floor to the level of the fifth floor. The second floor formed an irregular octagonal pattern; the third floor was rectangular in plan and contained reception areas decorated with paintings, with a stage thrusting out into the empty space in the middle; on the rectangular fourth floor, a bridge crossed the multistoried open space, which was surrounded by private rooms; the fifth floor was loft space; the octagonal-shaped sixth floor contained paintings on Buddhist themes depicted in vivid colors; and the seventh, square-shaped floor had panels depicting Chinese emperors and men of virtue.

Azuchi Castle was destroyed after the death of Oda Nobunaga. The tradition of the large-scale, sumptuous castle begun by Azuchi Castle was continued in Fushimi Castle (1594) and ŌSAKA CASTLE (1583), both built by Hideyoshi and no longer extant. After the Battle of Sekigahara (1600) through the Keichō era (1596–1615), there was a surge of castle construction by daimyō throughout the country. Many of these survive today or did until World War II.

The decline of the castle. By 1615 the Tokugawa shogunate, seeking to secure complete control over the country, ordered that there could be only one castle to each domain. Each daimyō was permitted to maintain only his main castle; all others had to be destroyed and even the one permitted to remain could not be repaired without permission. The art of castle architecture went into a gradual decline during the Edo period (1600–1868). Toward the end of shogunal rule Western-style fortifications were introduced. The Goryōkaku (pentagonal fortress) built between 1857 and 1864 by the Tokugawa shogunate at Hakodate in Hokkaidō is an example.

Castle-Building Techniques and Design — The most important step in building a castle was the site planning (*nawabari*). Ideally, a castle was composed of a main compound or ward (*hommaru*) centered around the donjon, surrounded by or connected with minor compounds or enclosures. There were several entrances to the castle, but the important ones were called the *ōte* and *karamete*. The former was the main entrance and the latter the rear entrance. In case the castle was overrun, the *karamete* could be used as an avenue of escape. A moat surrounded the castle, and natural features of the land were also employed in its fortifications. In order to reach the donjon it was necessary to traverse a maze-like route.

The donjons of some of the major castles of the Edo period, such as those of Himeji (1609), Nagoya (1612), and Edo (1638), were even larger in size than that of Azuchi Castle. There were different architectural types of donjon: the single type; the compound type, where a minor keep projected from a side of the main donjon; the linked type, where the main tower and a minor keep were connected by a passageway; and the group type, where the major donjon was joined by passageways to several "minor donjons" (*shōtenshu*). The donjon had originated from the watchtower built atop a warrior's residence; this was reflected in the form of some of the donjons built during the heyday of castle construction in the particularly large roof at the middle level, above which the donjon suddenly became smaller. A noteworthy aspect of donjon design was the roof, which was typically decorated with dormer gables (*chidori hafu*) and undulating gables (*kara hafu*). Built into the tower walls and the connecting galleries (corridor keeps; *watari yagura*) were machicolations (overhanging chutes for dropping stones on attackers; J: *ishiotoshi*),

which were originally conceived for defensive purposes but became simply decorative.

The principal construction material of a castle was wood. The early donjon had exposed wood members such as columns, horizontal members, and eaves, but at the height of the castle-building era most surfaces came to be plastered for the sake of increased protection against firearms. The walls were loopholed with apertures (*sama* or *hazama*) from which arrows could be shot and muskets fired. Both the inner ward and the outer enclosures were reinforced with small towers (*yagura*) which had a structure and design similar to the donjon's. The entrances to various parts of the castle were sometimes fortified with *masugata* (bastions laid out so as to form a rectangular courtyard), from which flanking fire could be directed upon assailants and in which defenders could group for a sudden sally. So-called mounted exits (*umadashi*) were earthworks constructed in front of the main gateways (*koguchi*) to mask the egress of mounted soldiers from the castle. Two gates peculiar to castle architecture were the *kōraimon* and the *yaguramon*. The *kōraimon* was one bay wide, with support posts on either side; it had a main roof over the two supporting pillars and auxiliary roofs projecting from them. The *yaguramon* was a two-storied gatehouse whose first level served as an entranceway while the second, from which it took its name, was a magazine (*yagura*; literally, "store for arrows"; the same word is used for the small towers of the castle).

Foundation walls were built of stone. Most curtain walls were earthen, but there were also wooden walls. Due to their vulnerability to fire arrows, however, the latter were mainly provisional or temporary in nature. Many loopholes punctuated these walls, and they were decorated in various ways, giving them interest as a design.

Remains. The oldest surviving donjon, possibly dated as early as 1576, may be that of Maruoka Castle in Fukui Prefecture. Donjons from the period of greatest castle construction activity are those at Matsumoto Castle in Nagano Prefecture (with a "minor donjon" on its northwest side; ca 1597), Inuyama Castle, Hikone Castle in Shiga Prefecture (1606), HIMEJI CASTLE (with east, west, and northwest "minor donjons"), and Matsue Castle in Shimane Prefecture (1611). The donjons at the castles of Uwajima in Ehime Prefecture (1665), Marugame in Kagawa Prefecture (ca 1642–ca 1672), Bitchū Matsuyama (now the city of Takahashi) in Okayama Prefecture (ca 1683), Kōchi in Kōchi Prefecture (1747), Hirosaki in Aomori Prefecture (1810), and Iyo Matsuyama in Ehime Prefecture (1854) date from the latter part of the Edo period. Some donjons survived the Edo period only to be lost to military action in the disturbances accompanying the Meiji Restoration (namely, the donjons of Aizu Wakamatsu in 1868 and Kumamoto in 1877), while several others were demolished as a result of the early Meiji government's policy (e.g., those of Hagi Castle in Yamaguchi Prefecture and Kokura in Fukuoka Prefecture). Famous donjons lost during World War II were those of NAGOYA CASTLE, Okayama Castle, and Hiroshima Castle. There have been numerous "reconstructions" of castles in recent years, but the viewer should not expect an accurate picture from them.

● Glossary

apertures or loopholes (sama or hazama) Small openings in walls or castles used to observe the outside and for shooting arrows and bullets. Rectangular openings were for shooting arrows, but those for firearms were round, triangular, or square, their variety perhaps for decorative purposes.

compound or ward (kuruwa) A division of the entire castle area defined by earthwork, stone walls, or moat. The central or main compound (*hommaru*) contained the donjon and towers, the second compound (*niinomaru*) usually contained the lord's residence, and the third compound (*sannomaru*) contained the residences of retainers.

donjon (tenshu or tenshukaku; "main tower") The most important building in castle architecture from the latter part of the Muromachi period (1333–1568) through the Edo period. The donjon originated in the watchtower built atop a warrior's residence. The feudal castle donjon began with that of Azuchi Castle, built in 1576.

moats (hori) Refers to manmade ponds, waterways, or simply trenches. In castles they were built for defensive purposes in several rings. Inner moat (*uchibori*) and outer moat (*sotobori*) are the most commonly found names.