

Japan Foundation

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Fellowship Project Title: The kaidan dansu, a stairway in historical shadow

Final report

The cabinetry of Japan known as tansu has within its multiplicity of designs something truly unique: a hybrid that is both staircase and cupboard. It is invariably known as the hakodan, hako kaidan, also the kaidan-dansu, literally box stair and stair chest or step-chest. Its history has been obscured by myth and anecdote as no other tansu that I know of, both its origins and uses.

In September of 2007 I was awarded a Japan Foundation grant to research hako kaidan. The following essay is the product of this research. My goals included finding texts on tansu which I had been unable to access in the United States. Another was to see hako kaidan in their original architectural context and finally to find out who made these cabinets and how they began. My methodology included book searches at the National Diet Library, traveling to various cities and visiting museums and historical districts. I also spoke with architects and when possible craftsmen, and antique dealers. Many people helped along the way and I thank them at the end of this essay, but I remind the reader any mistakes or omissions are wholly my own.

History

Wooden stairs of various designs have been in Japan for over a thousand years. The earliest forms dating to the Yayoi period (300BC-300AD) were cut from tree trunks, notched as it were and inclined for use to reach raised floor granaries. The Geku (outer) Shinto shrine complex at Ise still exhibits such forms as testament to their beginnings¹. Temple building techniques which arrived from Korean kingdoms with the spread of Buddhism in the 6th century encompassed what we think of as “normal” stair construction with stringers, treads and risers. To define these terms: stringers are the staircase sides, long boards generally set at an acute angle. The treads are the steps, and risers are the vertical panels at the rear of each step. These concerted parts complete a rigid and time worn design. Early wooden staircase construction has not dramatically changed; it was built in one of two ways: *gawageta kaidan*, and *sasarageta kaidan*. *Gawageta* was a staircase with the treads mortised into the vertical stringers on each side, while *sasarageta* exhibited notched stringers with the tread and riser boards affixed. These stairs however were primarily fixtures in upper class and religious architecture.

¹ See the Geiheiden, and Mikeden buildings pgs 152-159 :Ise, Prototype of Japanese Architecture, Kenzo Tange, MIT Press 1965



Temple stairs: sasarageta kaidan



Gawageta kaidan in later merchant machiya



Castles of the daimyo elite had *hashigo* or ladders as did the farmer, expedience being useful to both groups. The military could forthwith pull up or disengage such a stair form, if under attack. Additionally ladder-stairs exhibited steepness and large riser heights which would help slow down an enemy. Farmers used ladders to stow agricultural implements in a loft, or do roof repairs. Such were the “stairs” available through the intervening and turbulent years leading up to the first real signs of stability with Oda Nobunaga’s reign.

The building boom which accompanied the years of the *Momoyama* period (1573-1615) brought forth an expansion of architectural form, growth in the building trades and would be the foundation for the expansion of urban centers of commercial growth in the *Tokugawa* era (1615-1867). Urban buildings belonging to the *chonin* classes (artisan and merchant) had their stair counterpart in the *hashigo* as had farmers and samurai, yet ladders underwent an evolution also.

In historical *minka* and *machiya*² multiple ladder forms could be seen within a given household. The basic ladder with rungs, used as the most expedient tool for reaching heights (and still used for tree pruning or roof access) was accompanied by another ladder design. This ladder often seen in interior use was a more comfortable stout form featuring boards rather than poles for the vertical sides, and rungs replaced with thick planks mortised into them. In effect steps, in a word: a step ladder or *hashigodan*. This form no doubt had the added benefit of being able to ascend it without two hands necessarily holding onto the sides. The author has seen these not just in rural *minka* but in many Edo period urban merchant shop/homes or *machiya*.³ While this ladder was seen in the house interior it was more common near kitchen/work and store areas, many exhibiting earthen floors.

² *Minka* refer to rural homes, of numerous regional variations. *Machiya* are generally considered townhomes where a business and household were under one roof. Many styles existed eg. *kurazukuri* in Kawagoe, *segai-zukuri* in Imaicho, see William R. Tingey: *The Principle Elements of Machiya Design*, Process Architecture #25,1981. Unfortunately, Tingey does not consider stairways in this essay.

³ See for example the two stowable ladders in the Ohashi merchant home in Kurashiki, dating to 1796. These ladders could swing up and hang on notched poles or be bound with rope. Other examples in homes at the



[Three hashigo forms from minka, on far right is stouter form with mortised planks]

This “step ladder” evolved in one other way: its rear was planked thus enclosing the ladder effectively on three sides. This form was referred to both as *hakobashigo* (box ladder) and *hako kaidan* (box stair). From a construction perspective it made the ladder more rigid and sturdy, it also abetted the creation of wider steps because the treads were supported across their width, and finally such “enclosed” step ladders likely captured things that might have fallen out of hands. From a nomenclature point of view the “hako kaidan” is more apt as the evolution of wider forms created more of a stairway than ladder. Yet for clarity and to distinguish it from steps with cabinetry I will use *hakobashigo* for these forms. What is unclear is when the hakobashigo evolution occurred and did the idea “trickle down” from castle fixtures. Matsumoto castle for example had many ladders at various angles with considerable and difficult rise between steps. Castle building however basically stopped after the Edo period, as the peace ensued. It may well have been an ongoing evolution as occasional use turned into daily need in the urban architecture of Edo period cities.



Kawasaki Minka-en outside Tokyo are unattached and portable. The author also saw examples in still functioning shops in Kanazawa.

[Matsumoto Castle interior hakobashigo]



[hakobashigo

found in kura (left) and machiya in Matsumoto]

Urban townhouses, theatres, brothels and inns all evidence these hakobashigo. Courtesans and others are depicted going up them without even hanging on to sides evidencing that the angle which these “box ladders “ were installed was a more comfortable one. Woodblock prints from the mid 18th century by Utagawa Toyokuni, Nishimura Shigenaga as well as Hokusai and Kunisada amply demonstrate how prevalent this form was⁴.



[Two more hakobashigo: on the left from Bar “Kagiya” circa 1856, and a tobacco shop circa 1898.]

⁴ See Toyokuni’s: Courtesans on a staircase, circa 1790, from “Yatsushi onna-Chushingura” and the Edo scene “Dream of regal splendor at Kantan” by Nishimura Shigenaga

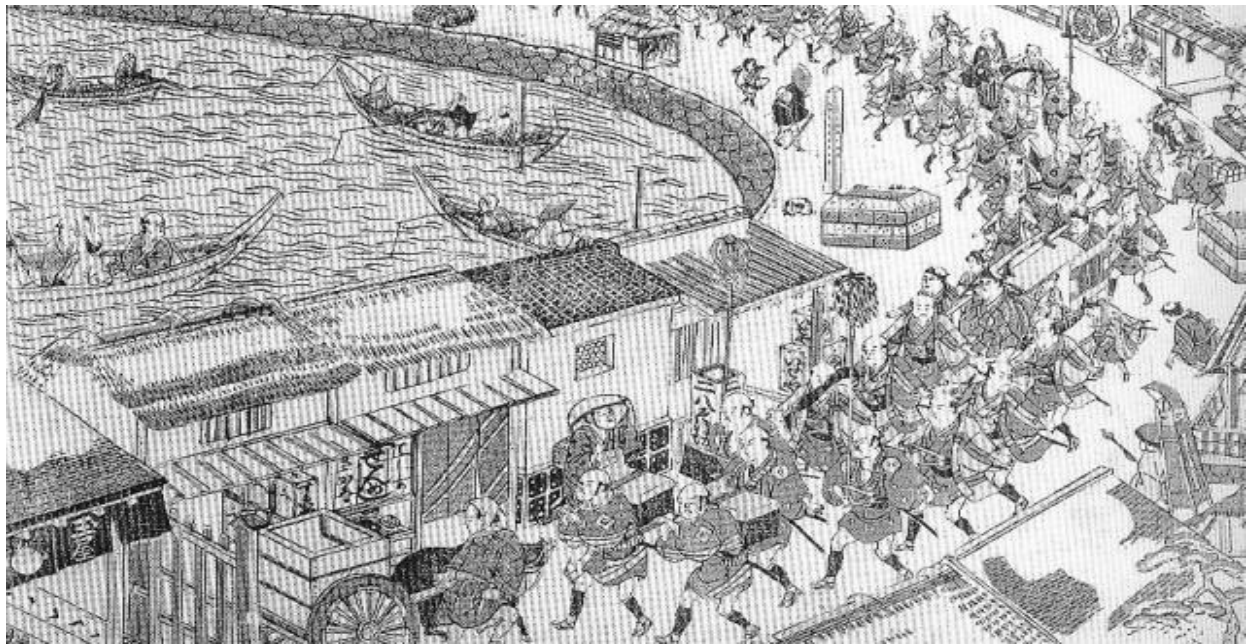


The thriving entertainment districts of Shimabara in Kyoto, Shinmachi in Osaka and Yoshiwara in Edo during Genroku (1688-1704) represented a plethora of urban architecture that was two stories high and



in need of some type of stairs.

Hakobashigo continued to be used concomitantly with the appearance of *hako kaidan*. Woodblock prints from the 1700's provide similar evidence for the appearance of *hako kaidan*. The Edo period print by Nishikawa Sukenobu dating to 1723 depicts a courtesan coming down a *hako kaidan*.⁵ *Hako kaidan* at this juncture will be defined as any stair and cabinet combination. *Hako kaidan* would also encompass combinations of the *hakobashigo* and cabinetry. But before turning our attention to the *hako kaidan* the various restrictions and sumptuary laws that pertained to architecture at the time need consideration.



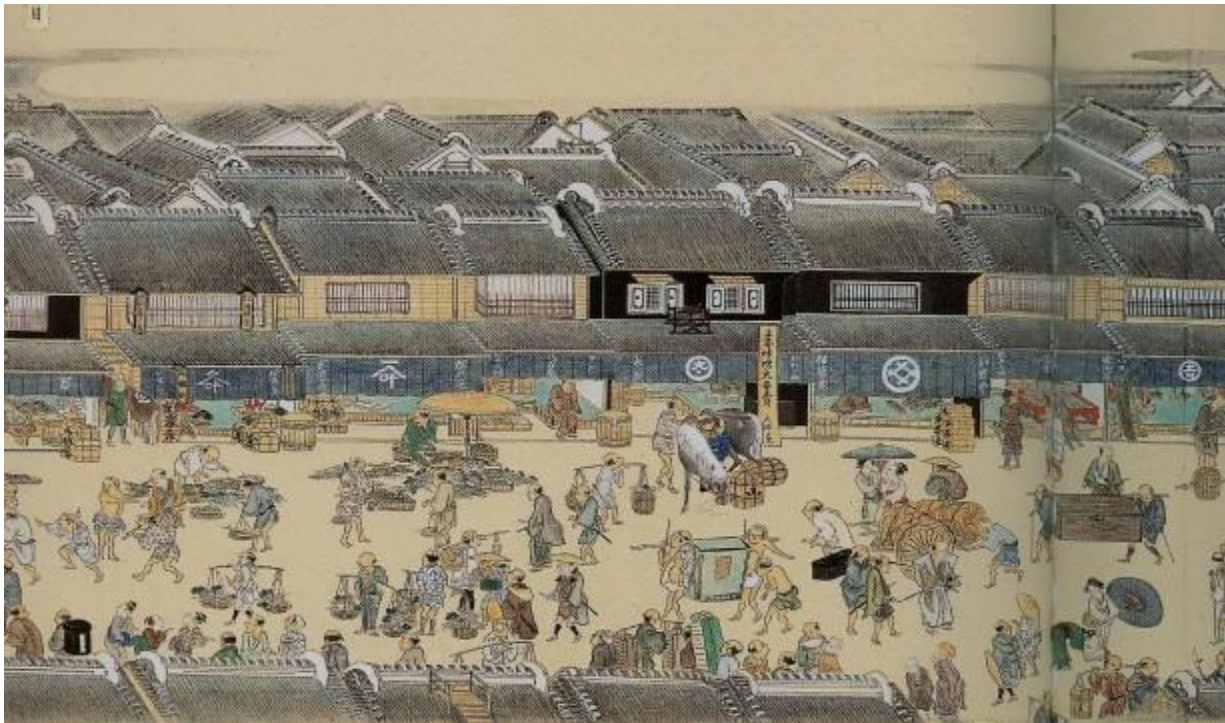
[Toyoharu, townscape illustrating two story housing]

⁵ The print is from an Edo period book written and illustrated by Nishikawa Sukenobu (1671-1750) I am indebted to Saito Masashi and the Tokyo Furniture Museum for this example



[Rakuchu Rakugai zu

:detail from 16th century screen of Kyoto providing evidence of two-story buildings]



[Edo townscape from hand scroll “Kidai Shoran” featuring many two story machiya, circa 1800,]

Architecture Professor Atsushi Ueda makes clear in his book “The Inner Harmony of the Japanese House” that Edo period proscriptions existed against second stories where “fancy possessions

could be kept or where people could look down upon passing samurai”⁶. Contradictory visual evidence- such as the prints sited above- is but one side of the coin. We are fortunate to have examples of historical housing extant in cities such as Kurashiki, Matsumoto, and Kanazawa. Edo period 2-story buildings exist in the open air museums across Japan as well. To see architecture exhibiting second stories and attics is to wonder what became of such prohibitions. Professor Takeshi Nakagawa of Waseda University said that these laws really were about prohibiting the merchant class from actually living on a second level, presumably with their growing material possessions at hand, and not a proscription against having areas of storage⁷. Most merchants and artisans would never have considered living upstairs for they would have seen it as a “step-down” in the ongoing desire to emulate warrior lifestyle. Such a practice-using the upstairs for a temporary bedroom- when it did occur-was by shop hands and apprentices in any case which further makes the point. However, those upper spaces certainly signified the growing material wealth being accumulated by the chonin classes.

The architect Karin Lofgren suggests appearance is what counted and so compliance with regulated building heights was indeed seen from the front street side. However rooflines gradually moved higher as one traveled back through the house allowing for full height secondary floors in the middle and rear of machiya.⁸ Lofgren’s focus was on Kyoto machiya but the idea carries over to other urban centers: that what counted was following the law pertaining to exteriors, what you did in private was your business. Indeed many restrictions primarily pertained to highly visible elements such as roof detail and material and gates, while prohibiting in word at least interior Shoin details.⁹ In the end such restrictions were largely ineffective in stopping the dispersal of status related aesthetics and apparently just as rarely enforced¹⁰.

There was never any restriction against *hako kaidan* per se, nor taxes on the second story spaces which hako kaidan led to. In a conversation with Nakagawa-san who specializes in the history of traditional Japanese architecture, he opined as much¹¹. Perhaps taxes if levied would have acknowledged the widespread reality of second stories, a fact the military government would rather have ignored. And besides chonin were paying taxes for street frontage in any case. It has been suggested that hako-kaidan were hidden in closets (*oshiire*) behind fusuma doors because second stories were illegal, and perhaps assuage guilt. This seems a stretch of the imagination, given that architecture in general flouted the law. Rather it seems more a consideration of floor layout and design common sense. Locating the stairs in a closet keeps it out of the living space at hand (and off a tatami floor), closes the space off stopping drafts, loss of heat, and finally secures a space used occasionally

⁶ Page 116, chapter on “Upper stories” in “Inner Harmony of Japanese House” by Atsushi Ueda, see also where a prohibition is dated to 1723, pg 106 in “Machiya- History and Architecture of the Kyoto Town house”, Karin Lofgren 2003. Prohibitions of the 1720’s are also discussed in G. Sansom: “A History of Japan 1615-1868”, pg 160-1

⁷ Conversation with Architecture Professor Nakagawa Takeshi, at Waseda University, 31 October 2007

⁸ See pgs 98-9 and 106-7, Lofgren op cit.

⁹ Such elements as ranma, sugi doors, tokonoma, lacquer and paintings

¹⁰ See the comments of William Coaldrake: “Edo Architecture and Tokugawa Law”, pp 270-273, Monumenta Nipponica, Vol. 36. Autumn 1981

¹¹ Conversation with Prof. Nakagawa at Waseda University, Oct 31, 2007

rather than daily. Indeed, the ease with which interior partitions can be removed suggests visual /compositional elements could be part of these decisions as well.

The fact is storage was both private and public. The rooms of a machiya to the rear of the public commercial front (the mise) encompassed a family's personal space. A closeted hako kaidan in this area such as the one seen by the author at the Ohashi house (1796) in Kurashiki is at once a means to access yet one other private sphere: the upstairs where tansu and trunks connected to marriage and family history reside. It seems more probable that such access would necessitate the ability to close it off from the world at large or even guests, thus requiring a set of fusuma doors. In more public spheres such as brothels, inns or thriving businesses which needed access to shop inventory or an expeditious means to a kitchen, hako kaidan were seen in full view adjacent to sales/work areas. Hako kaidan seen by the author have been obvious and indeed could have been seen as much as a status object as a required architectural necessity¹². Hako kaidan in these public spaces further belie the fact that hiding such cabinetry (or the spaces above denoted by its presence) was a critical ongoing concern.

It is also an interesting fact that early woodblock prints depict hako kaidan openly. Woodblock printmakers and publishers often had government censors who passed muster on what could be depicted, but evidently images of two story buildings and hako kaidan were acceptable. I would like to consider the ukiyo-e which document hako kaidan in the early years of the Edo period in order to try and cast some measure of when and where hako kaidan began. Rosy Clarke¹³ in an essay published in *Arts of Asia* stated that hako kaidan likely started in the Niigata (Hokuriku) vicinity during the late Edo, presumably 1790 onward. However, images created by Kansai printmakers reveal that the hako kaidan was a familiar fixture even as early as 1702.¹⁴ Omori Yoshiaki's (active 1702-1716) print from an album called "Shidare Yanagi" shows a woman leaving a gathering of game players by ascending a hako kaidan. It is the oldest image of hako kaidan that the author is aware of. Next would be the book woodblock print by Nishikawa Sukenobu dating to 1723 in which we see a courtesan ascending a step-chest. The interesting thing in this image is that we see a hako kaidan depicting a design- with a face frame- familiar to us nearly 300 years later.

¹² Professor Nakagawa goes one step further suggesting that the kaidan dansu was primarily decorative. See his essay "The Box Staircase", pg 179-186, "The Japanese House, In Space, Memory, and Language"

¹³ *Arts of Asia*, March-April 1984 "A Step in Time, Staircase Chests of Old Japan", see also "Japanese Antique Furniture" pg 36, Weatherhill, 1983

¹⁴ The cabinetmaker and other allied trades diverged from carpentry from 1650. Certainly with urban growth all woodworking trades flourished and specialized. The Tokyo Furniture Museum documents tansu shops in Osaka by the Edo era (1673-1680). To be depicted in a visual format such as ukiyo-e, a popular genre suggests both the audience and artist were familiar with hako kaidan



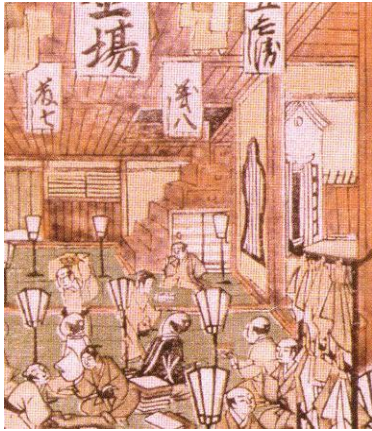
[Omori Yoshikiyo: “Shidare yanagi” album, 1702]



[Nishikawa Sukenobu, detail circa 1723]

Utagawa Toyoharu depicts the Echigoya textile store interior in a woodblock print from the 1790's. At the rear of the store is a hako kaidan. I had an opportunity to see this actual print at the “Uki-e, Perspective Pictures in Edo” exhibition at the Ota Memorial Museum of Art in October of 2007¹⁵. Our eye travels to the back of the picture not only following the line of cabinetry and lamps receding in scale but by color. The flashes of white in the lamps against the overall amber and muted green of the print lead to other patches of white. At the rear the doors of the kaidan dansu are uncolored and are adjacent to other white patches which are kura, the white masonry storage buildings of the period. I am fascinated by the decision not to color the tansu's doors or the wall behind it surmising Toyoharu was conscious of these compositional ploys. As a woodworker and tansu researcher I am grateful how the composition highlights a furnishing rarely documented.

¹⁵ “Uki-e” ran from 10/2/07 through 10/26/2007, Ota Memorial Museum, Shibuya-Ku, Tokyo



[Toyoharu: Echigoya

store, circa 1790's, detail views]



Toyokuni ,detail of 1812 book print]

Next is another image Saito Masashi of The Tokyo Furniture Museum made me aware of: an 1812 book by Kohjaku Hachiji Zoroi illustrated by Utagawa Toyokuni. In this book we see two courtesans in front of a hako kaidan with lamps and candlestands nearby. Finally we see an image of another courtesan ascending a kaidan dansu in Kuninao's book print, circa 1825-50. This step-chest also exhibits a face frame, and appears to be of two sections. Interestingly these last two images show hako kaidan with hand rails. Albeit a minimal selection-these images of hako-kaidan provide direction. The Kansai (inclusive of Sakai, Osaka, Kyoto, Kobe) with its early urban environments, mercantile activity, and two story buildings make a strong case for locating hako kaidan origins here. That such furniture ideas as hako kaidan would have reached the trading ports of the western and northern coasts from Osaka and its environs I have no doubt. Edo was the recipient of these ideas as well, as merchants opened branch

stores in the city. I simply believe that the influence ran in that direction rather than the one suggested by Clarke.¹⁶



[Kuninao, from an Edo period book circa 1825-50]

Myth or history?

Before further considering actual examples of hako kaidan and kaidan dansu I would like to consider the a story about hako kaidan origins.

From the book “Mystery of Japanese Customs 2”:¹⁷

“The reason why kaidan-dansu was made in west Japan with Osaka as the center was probably because the people were practical minded. However there is another meaning which comes from the Age of Civil Wars (approx 1450-1560). The moment when people went up or down stairs was one of the most dangerous times to defend oneself from an enemy’s attack. If it was a ladder type of stairs, there was the possibility that the enemy could push up spears or a sword in the gap (between the rungs), or if the

¹⁶ I acknowledge that of the five images three are from Edo printmakers: Toyoharu, Toyokuni, and Kuninao, but the two earliest images are of men who worked in Kyoto: Yoshikiyo and Sukenobu, and Toyoharu began there. I still believe the point stands: documentation suggests Kansai origins for the step-chest.

¹⁷ Kiyoyuki Higuchi: “Zoku Nihin no Fuzoku no Nazo”, published by Yamato Shoba 1985

enemy's attack occurred in the middle of the stairs the person lost any freedom of movement. Therefore, at least, to defend themselves from the attack they put drawers and shelves under the stairs."

I have heard this story retold as people started to stack things under the ladder to fill in the space. In either case it is the vulnerability of the warrior to attack which prompts the first hako kaidan.

What's wrong with this story as the beginning of hako kaidan?

First, this story is supposed to happen when much of Japan is still in the midst of constant warfare between *daimyos*, in the period between 1400 and 1550. (I have heard the civil war period to be inclusive of even earlier years, which would make my points even stronger)¹⁸ It is also a story that suggests or implies a routine interior use of ladders. Yet military elite, people about whom history was written, lived in *Shoin* style buildings. In such buildings people lived at just above ground level in a single story architecture not upstairs.

It is quite easy to succumb to other arguments about this story, such as observing that people would have gone up and down ladders facing forward, thus able to see what is "beneath" them. Another point would be that people at this time, even samurai, have little in the way of lacquered trunks and woven boxes (*tsuzura*). So in fact there is little in the house to stack behind any ladder. Finally the trade of the cabinetmaker would not get into full swing until the Edo period thus it would be hard to imagine who was building "drawers and shelves under the ladder". Compartmentalization with drawers and doors was the primary change distinguishing cabinetry (*tansu*) from trunks (*nagamochi*) and boxes (*hako*).

Assaults by samurai upon samurai as each escaped up steps in architecture of the time- no doubt occurred. Castles and mansions had stairs of various design-including ladders, but this –a theory of hako kaidan origin- does not make. As I have said, the timing is all wrong. Are we to assume that such events stimulated hako kaidan development before the architecture and clientele was around to inspire and take advantage of it? I refer to the merchant class, the *machiya*/townhouse, the entertainment quarters, the *kura*/ storehouses ? I should think that if this tale of ladders and samurai were the real beginnings of hako kaidan there would have been a concomitant history of the hako kaidan as a samurai/shoin architectural fixture? The fact is I have never seen any corroboration for this story in the literature of *tansu*, or architecture. I was also pleasantly surprised when Professor Nakagawa Takeshi agreed that there was little credibility to it.

¹⁸ Seattle woodworker Thomas Wendland was quoted as saying "kaidan dansu began as a 13th century practice of stacking boxes underneath stairs" in a webpage of Taunton Press. I contacted him via phone and asked where he came up with this information. He said he had been to Japan and had heard it from a museum curator, presumably from the story in "Mystery of Japanese Customs" sited above.

Hako kaidan development

The following terms have been used to denote the cabinet/stair combination.

Hakodan: box step and /or box stair....*hako* is box, case, or chest; *dan* is step or flight of stairs, it is also used for a tread, e.g. *dan-ita*

Hako kaidan: box stairs/ box stairway.... *kai* can be stair or staircase, and is also the counter for stories in a building, e.g. *nikai* or 2nd floor

NOTE: I have seen both these terms used for the hakobashigo as well. In as much as the hakobashigo was a “boxed out set of steps” rather than a ladder, they are correct. However the term hako kaidan has more prevalent use in describing “stair cabinets”, and for the purpose of this essay I will hold to this reading.

Kaidan dansu: stairway chest, stair cabinet. The latest term with kaidan and tansu combined suggesting both a cabinetmaker (*sashimonoshi*, *tansu-shi*) and cabinetry (tansu). To me the inference is different tradesman, different methodology.

These three terms suggest an evolution of architectural-storage seen in the urban environment throughout the Edo and Meiji periods, but a clear chronology was difficult to determine. Many hybrids occurred evidencing above all practicality when it came time to determine what type of stair and storage need would suffice. I have seen old ladder designs used into the 1920's, while also being told of a large hako kaidan from Osaka dating to 1717¹⁹. There is no clear line of evolution in which we can say one design replaced another, my travels and research however have led to these observations:

The boxed ladder (hakobashigo) grew in width and for urban buildings was inclined at lesser angles which could more comfortably be ascended thus becoming a common fixture. These forms at times were seen to be sitting upon several stairs, in effect a base “boxed out”, complete with one or two drawers. Upon this short “stair-cabinet” the hakobashigo would begin and rise to its termination at the second floor. It was a form embodying 70% kaidan (stair) and 30% hako (box), thus becoming a hakodan or hako kaidan. Some of these occurred where a change of direction was desired, and perhaps the full length of a hakobashigo was not possible. Drawers in each case were different, some coming from the front, some from the side. Yet the question remains was its creation due to cost? Expedience? Inexperience? I was unable to determine specific reasons for its creation.

¹⁹ The director of the Takenaka Carpentry Tools museum Kenzo Akao, answered a letter by way of Hakuzan Shionoya, artist and tansu collector. The letter told me of a hako kaidan dating to 1717 that was purchased by the antique shop Akariya. The dating appeared on the iron hardware.



[Box ladder (hakobashigo)with built in drawers from a Kawagoe machiya and two images from a machiya in Kanazawa.]



[At left are two images from a dry goods store dating from the 1920's from Koganei Park Minka-en, Tokyo : an interesting example of a Taisho building with extant old stair forms. At right is a fascinating hybrid of hakobashigo and drawers. This piece suggests the drawers were added to the original ladder style steps at a later date, and with additional framing. From the article by Rosy Clarke in Arts of Asia].]

Next was the hako kaidan defined by a hakobashigo as a complete intact stairway and beneath it built in cabinets. The form could simply reflect that the intact hakobashigo "stairs" was serviceable, and not in need of replacement, only the need to utilize the space beneath was paramount and so this combination was born. These stair-cabinetry forms could be a precursor to hako kaidan or they could have been inspired by people seeing hako kaidan, and then wanting to take advantage of the space beneath their own existing hakobashigo. It is unclear which is the case. However, I believe the latter explanation makes more sense. Why? because sometimes the combinations are incongruent stylistically and visually. For example the cabinetry is of a Taisho (1912-26) style/design when in fact the hakobashigo dates to the Edo (1615-1867) or Meiji (1868-1912) eras when the house was built. Another

point is although this built-in cabinetry mimics hako kaidan the framing informs us that the storage needs within the triangular space held sway as the deciding factor-and not the need for stairs.



[Above a Matsumoto shop hakobashigo with built in cabinetry below, and two other similar combinations. The left photo is from a sake distributor's machiya in Kanazawa.]

Hako kaidan

Finally one encounters the hako kaidan, stair and cabinetry, distinct from any ladder design. These hybrids are resolved designs taking into account both the architectural context, and client need

for storage. They can have drawers or simply a set of doors to secure cupboards. Some are straight runs, others spiral, and still others change direction. Early hako kaidan often are of single section and built in conjunction with the house, indeed examples such as the spiral staircase illustrated below are less the traditional image we have of the triangular stair-cabinet, yet still fulfill the definition. Others such as the Sumiya²⁰ hako kaidan and the Kanazawa machiya are examples of a form familiar to us yet exhibit carcass frame members contiguous with architectural framing. This essay is using this architectural factor as one of the fundamental differences between hako kaidan and kaidan dansu.

Another fundamental defining hako kaidan has to do with who made them, referring here to the daiku or carpenter. And I will return to this point further on.



[Hako kaidan from a

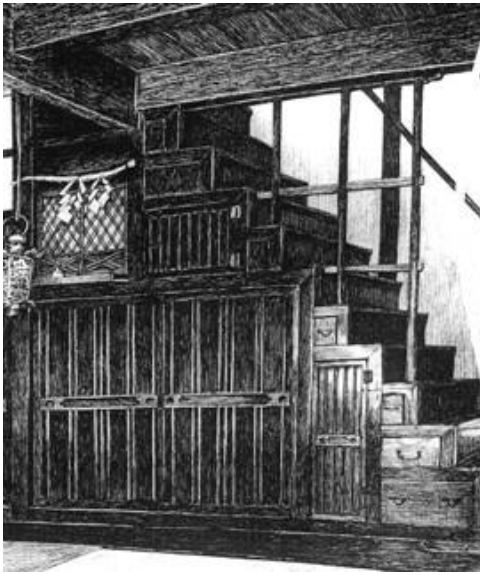
machiya (left) and kura storehouse, both circa 1860-90 from Kawagoe, in both instances the stairs spiral and cupboards are secured by doors, no drawers in either.]



[One more example of a built-in hako kaidan with drawers]

²⁰ This large single section hako kaidan can still be seen in its original historical building located in Kyoto. See illustration next page.

It has been suggested that the term “hako kaidan” stems from being “boxed” inside closets.²¹ The inference being hako kaidan were concealed stairs cabinets. In fact I believe the derivation may be otherwise. The word hako means box- hakoya was the first early term for joiners. The term hakoya predates sashimonoshi (cabinetmaker), just as trunks (nagamochi) and boxes predate cabinetry with drawers (tansu). The early stair-cabinets were seen as a series of stacked boxes and likely named hako kaidan due to the trade associated with boxes: hakoya. Making such a conclusion does not suggest that hakoya in fact fashioned hako kaidan, I don’t believe they did, only that this seems a more plausible story for the fixture’s name. Closeted hako kaidan further suggest a custom practiced later in the Edo period, because the early visual imagery present hako kaidan in the open. Admittedly these examples show hako kaidan often in commercial settings, the most prevalent being brothels/pleasure houses (ageya). Both ideas: closeted hako kaidan and visible hako kaidan were likely concomitant throughout the period depending simply on where hako kaidan were placed.



[an illustration of the large hako kaidan dating from the late 1700's in the “Sumiya” pleasure house in Kyoto.]

²¹ See Atsushi Ueda pg 108 op cit.



[Above a machiya in Kanazawa with hako kaidan, the main vertical frame member at right is continuous and has additional built-in cupboards to the right. Below is the closeted hako kaidan from the Ohashi house in Kurashiki, circa 1798. While made in two sections its rear framing is attached to the house walls, and on its right has affixed built-in cupboards.]

To this researcher hako kaidan also represent the beginnings of trade divergence, or put another way trades coming into their own. Hako kaidan like many of the hybrid stair and ladder forms were built by carpenters. Stairs being part of architecture, the carpenter was responsible for fashioning the framework, treads and risers. But the province of the carpenter would itself expand as stairs changed. A burgeoning merchant class clientele needed storage in machiya which housed both their

business and family home. Hako kaidan are above all else merchant fixtures. Designs would more and more exhibit drawers, the main character of cabinetry.

Kaidan dansu

I use the term kaidan dansu to define any free standing step-chest which exists in multiple sections and exemplifies cabinetmaking design concepts. While it can be attached or secured to a house it has no framing contiguous with house framing. A distinguishing factor between the carpentry and cabinetmaking trades is that the former primarily worked on-site, the other in a shop separate from a building or residence. After the building's structural completion, spaces would be measured and with client desires cabinets were designed, built and installed. I believe such was the case for kaidan dansu. Of specific note is the kaidan dansu made of three sections, or more where a central chest especially can be seen as a separate tansu if the top and side chests were removed. Multi components make sense when the design is large or shaped as kaidan were.²²



[Cutlery shop, Kawagoe, with a
2 section kaidan dansu circa 1890's, Meiji era 1868-1912]

²² Such is the case for kitchen and bedding tansu. I don't mean to imply carpenters built these large tansu, only that they represent a sub-specialty of tansu-shi, and likely a regional one at that, see for example the kitchen cupboards of Hikone and Nagahama of what was Omi province /Shiga Prefecture.



[A Taisho era (1912-1926)

three-section kaidan dansu from a Matsumoto shop, with detail.]



[A late Edo three section kaidan dansu from Joetsu : Tokyo Furniture Museum, and detail]

It has been said that kaidan dansu made in two and three sections reflect the desire to easily move them in case of emergency. Tansu – the term refers to a history of portable cabinetry- such as *isho-dansu*, *choba-dansu* can be counted on to have iron hardware or framing which aids in their portability, but one would be hard pressed to move kaidan dansu. They are deep and awkwardly shaped. While multiple section kaidan dansu could in theory be dismantled and removed from a burning house, we discount the practical realities, these would be full and heavy fixtures and require multiple persons to carry them. It's no way to escape from disaster. In addition many kaidan dansu were affixed to walls for stability thus rendering them immovable.

I believe other factors were at work or at the least contributed to multi-section kaidan dansu. First is the methodology and practice of a new trade involved in their construction. The sashimonoshi, or at least sashimonoshi-daiku were now building them having taken over from daiku. The fact is tansu/cabinetry was evolving even as stairs were. The Edo period was replete with trades evolving into various sub-specialties.²³ Another factor would be the issue of ownership. Built in cupboards-again cabinetry with framing contiguous with house framing- cannot be taken with you when you move (if by desire, economic circumstance, or disaster). They do not imply or signify ownership and status as a freestanding and separate fixture can. The evolution of the cabinetmaker signifies an age of more things, of material progress. An age of objects ordered and purchased with status in mind. This was the world of the merchant class.



[This interesting kaidan dansu was in a Kawagoe textile shop. It is one section and of smaller scale with mass produced hardware. It was placed on a base to be fully functional and is likely from the 1930's or later. What I find interesting is its late production and being one piece, yet it is free-standing, and I saw no connection with the surrounding architecture. It is a separate piece of furniture, a furnishing capable of being moved to another location and is as much decorative status object as functional stairs.]

Who Built Hako kaidan/kaidan dansu?

The architects and professionals in the museum community told me daiku or carpenters made stair cabinetry. Indeed many homeowners said the same when I inquired. I believe carpenters did build the first hako kaidan and many Edo period examples, intimate as they were with stairs, and architecture, and built-ins. Such a carpenter would have been the equivalent of the finish carpenter in our day with an expertise in interior details, distinct from the framing carpenter. I believe this is what most people mean when they say "a daiku built it". But it would have been a craftsman with experience in cabinetry also. I

²³ See listing of sashimonoshi, and tansu-shi in "Edo Shokunin Zukushi", by Mitani Kazama. The material on the sashimonoshi, or specialty trades within this profession is slim at best. At the National Diet Library I found no text on these trades, only on objects and technique.

often asked homeowners: “who built their kaidan dansu? Was it a daiku or was it a sashimonoshi, a tansu-shi? “Only in one instance did the homeowner say a sashimonoshi built a kaidan dansu, which was the Taisho era three section chest from Matsumoto illustrated above.

Many people I spoke with often implied the daiku responsible for hako kaidan was a less skilled artisan than a sashimonoshi. As a woodworker I am familiar with joinery and the skills required to make cabinetry and stairs. While I have been unable to see early Edo period hako kaidan I would venture few were crude, unskilled furnishings. Indeed it would be like suggesting the men responsible for rural minka were unskilled. There is nothing unskilled in the timber joinery I have seen in minka, nor the many built-in cupboards inside them.²⁴ I believe what exists here is simply a cultural prejudice. The sashimonoshi is connected to more intimate furnishings e.g. a bridal tansu in contrast to the carpenter connected to an architectural fixture.

It is the evolution away from built-in hako kaidan of single section, towards “kaidan dansu” made of multiple sections, which signals to me a trade specialty truly had come to fruition.²⁵ The term itself denotes the differences. The stairway tansu. Tansu was being produced by independent shops in Osaka by the late 1690’s. Just as the joiner grew from the box maker with the distinguishing factors of drawers and sliding doors so I also see a branch of carpentry specializing becoming the sashimono-daiku²⁶ evolved. Not that the name was used then. Karin Lofgren’s research notes that most specialty terms for carpenters e.g. machiya-daiku are modern. In the Edo period the only distinct nomenclature would have been terms denoting temple carpenter (miya-daiku) from carpenter (daiku)²⁷. Yet the specialties did exist.

With these situations extant: woodworkers, architecture, and material progress the kaidan dansu was going to come on the scene, but the question remains who invented the step-chest? Was it a merchant’s idea as he pondered storage requirements in his home/shop? Was it a cabinetmaker involved with a client who suggested combining the two needs? Or did a carpenter-someone we think of more intimately tied to architecture think of it, and perhaps built the first one? After all most people went to a joiner to buy or order tansu. Just how often was a joiner in a client’s house reflecting on spatial and storage needs? Not often I dare say. But a carpenter might have been.

The fact is most evidence points to the step-chest as a merchant fixture: an effective answer to access, to storage, and to status. The only thorough consideration of step-chests in Japanese literature I found was Architecture Professor Kudo Takashi’s three part essay published in the Bulletin of Japanese Society

²⁴ The “built-in” in tansu history remains unexplored, implying as it does skills of the rural carpenter where the cabinetmaker had not yet set up shop. Minka built-ins represent expedient cabinetry in homes whose owners perhaps could not afford separate freestanding cabinets, or simply had no exposure to such designs.

²⁵ This is not unlike the evolution of the term joiner in our own colonial history. Joiner and cabinetmaker denoted differences in technique. See pg 41, “American Furniture, 1620-Present” by J. Fairbanks and E. Bates, 1981

²⁶ The term “sashimono-daiku” was used by Professor Hyuga Susumu in email exchanges with me. He teaches at the Kyoto Technical Institute, and has studied Kyoto machiya and the carpenters who built them.

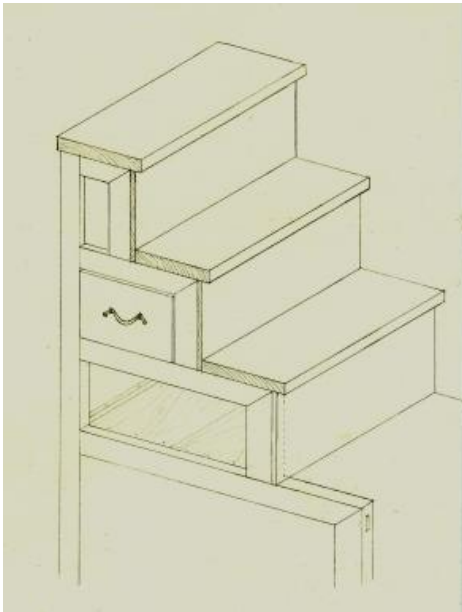
²⁷ See Lofgren, pg 116, op cit.

of Design in 1991-92.²⁸ Of the forty odd hako-kaidan/kaidan dansu he reviews most are fixtures from machiya. Indeed all of the step-chests I saw-even when severed from their architectural origins in antique shops- were from merchant or tradesman's homes. Evidence suggests a merchant may very well have been the originator of the idea, not necessarily a craftsman.

Kaidan dansu construction²⁹

Hako kaidan and kaidan dansu exhibit various methodologies of construction. Before my arrival in Japan for this research I had drawn three primary methods gleaned from my experience in restoring over fifty kaidan dansu over the last fifteen years. These construction details combine the method by which tread and riser are attached to the larger framework of the cabinet carcass:

- 1) This kaidan dansu was constructed of a mortised and tenoned framework over which the tread and riser is affixed. Interior stiles front to back and drawer runners are used in concert with the treads and risers to complete the overall carcass design and ensure strength. This design is the most expedient form of construction. The tread and riser hide any indication of the rear frame.

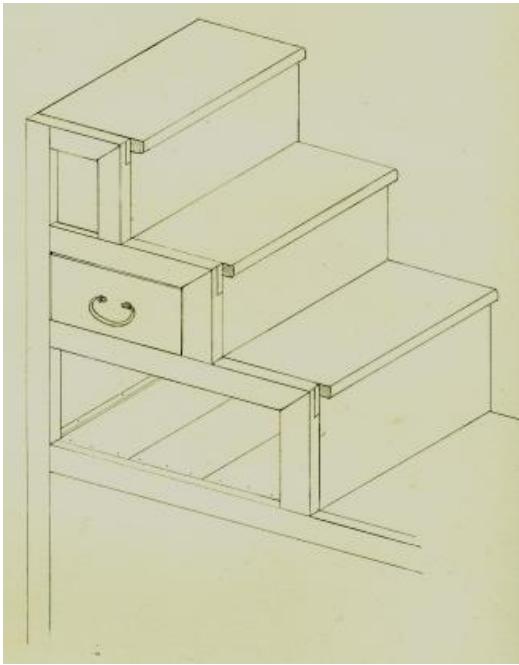


- 2) This kaidan dansu exhibited a face frame. This framework visually caps the entire front but is in fact continuous with framing behind it which supported the treads. From the front the tread

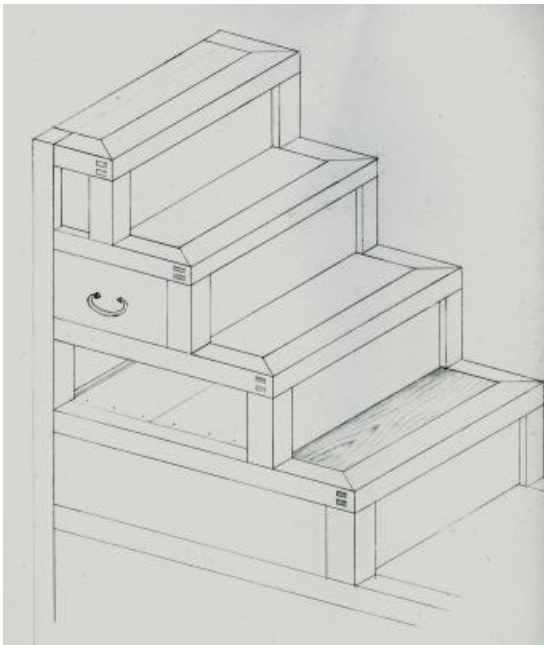
²⁸ Kudo Takashi: Characteristics of the hako kaidan, 2: Form and Composition of the hako kaidan, 3: Construction of hako kaidan, 1991-92 Bulletin of JSSD No.88,90

²⁹ My restoration experience is solely with step-chests removed from their original architectural context so I am referring to all of them as kaidan dansu. In some pieces I was aware other structural conditions existed previously either by sawn off handrails, etc. or the tell tale signs finishes can provide about history/installation.

and riser are often hidden by this framing. The tread and riser hides the rear or back frame.



- 3) The third kaidan dansu exhibited a framework throughout in which the tread and riser are inset, effectively flush with the frame- an attractive design-yet more labor consuming. Such frameworks exhibited three part mortise and tenon joinery, oftentimes mitered mortise and tenon were seen as well. In these cases front and rear framing was contiguous and visible.



This paper will not continue to elaborate construction details, woods used etc. as I hope to do so in a future publication. I wanted to define the primary ways of constructing kaidan because they illustrate stylistic differences. I had hoped that my travels would suggest particular construction methods were regional but such was not the case, nor by date. Rather evidence suggested all construction methods were used in kaidan dansu throughout Japan, and some very old step-chests evidenced the most sophisticated construction (#3). The best estimation of one technique over another was simply the cost of construction, and the desired effect, expedient need or status object.

Afterword

Kaidan dansu are still made, indeed this design still inspires architects and cabinetmakers alike. I do not worry for the loss of inspiration, only of history.



[Two contemporary renditions of the kaidan dansu found on websites.]

Perhaps the story about ladders and samurai which I earlier recounted as the beginnings of hako kaidan was meant simply to add mystery to a craft tradition. But hako kaidan need less mystery and more exposure if they are to be documented and appreciated before they are gone. In my discussion about kaidan dansu with one antique dealer he reminded me how scarce they are becoming.

There is precious little on hako kaidan history: the thoughtful discussion of design with diagrams by Kudo Takeshi of the Kyoto Institute of Technology, the reminiscences of Professor Atsushi Ueda, and the recent consideration by Professor Nakagawa, represent most of the information in Japanese on the subject. No book focuses on them and the essays cited above omit consideration of the maker of hako kaidan, let alone a proven town of origin.

The difficulty in researching a topic such as kaidan dansu is of course history itself, the passage of time, the loss of family members able to recollect history and the editorializing of information subject to class, fashion, and values. My question of who built hako kaidan remains a mute one. We know very little about the cabinetmaker or sashimonoshi, much less the sashimono-daiku. Storage and stairs represented worlds of use, distinct from objects of cultural importance in Edo and Meiji era Japan. Indeed whether I asked an architecture professor or homeowner about hako kaidan, the question was an oddity to most, hako kaidan simply were not relevant. By implication neither were the craftsmen who made them. It was sobering to find myself with the realization that the one wall I never expected was to be a cultural one. In my naiveté I had forgotten that the craftsman in the Edo period was seen as contributing their toil and skill for the benefit of the society at large, anonymous and industrious. How had I come to expect their lives to have been special and documented any more than the door maker or sawyer? I suppose because as a 20th century craftsman-from a western culture- I could not look at the kaidan dansu without seeing it as remarkable design. I was certain its connection to architecture would insure someone had noticed it. Sadly most have not.

Today houses get torn down, and antique dealers wait to purchase the kaidan dansu thence to be sold-often- to an audience thousands of miles away from Japan. Wrenched from their context, kaidan dansu become large sculptures. Ironically, while they can be used for storage they are as often used as decorative objects, surpassing the “mundane” context of use that made sure they were ignored in Japan. It was from such a perspective- an antique store- that I saw my first kaidan dansu and was enthralled by the genius who conceived and built them. That I could not give better voice to these craftsmen represents the only disappointment of this research opportunity.

I am very grateful to the following people; this essay could not have been written without their input:

Saito Masashi of the Tokyo Furniture Museum, Professor Kudo Takashi, Professor Nakagawa Takeshi, Professor Hyuga Susumu, Emiri Mukai, Noriko Yokoi, Ayumi Hashimoto, Professor Dana Buntrock, Professor Susan Hanley, Martin Puryear, Robert Truland, John Adair, Akira Satake, Douglas Woodruff, Professor William Coaldrake and the anonymous daiku, tateguya, and merchant family who I stumbled upon in Kanazawa who put with my curiosity.

Finally I thank the Japan Foundation for supporting me while I carried out this research.

Glossary:

Chonin: the merchant and tradesman classes of towns

Daiku: carpenter

Daimyo: regional military rulers

Gawageta kaidan: stairs where the stringer is notched to receive the tread and riser boards

Sarageta kaidan: stairs where the treads are mortised into the stringer boards on each side

Hashigo: ladder

Hakobashigo: box ladder

Hako: box

Hakodan: box stair

Hako kaidan: box stairway

Kansai: geographical term denoting the Kyoto-Osaka-Nara region

Kaidan dansu: stair cabinet

Sashimono-daiku: carpenter specializing in hako kaidan/kaidan dansu

Tansu/dansu: cabinet or chest, when a descriptive term is used e.g. clothing “isho” the “t” becomes a “d”

Uki-e: perspective picture

Ukiyo-e: woodblock print (literally: picture of the floating world)

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