Hokusai and the Blue Revolution in Edo Prints

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The *Thirty-Six Views of Mt. Fuji* is so pivotal to Hokusai's career and subsequent global fame that we tend to take it for granted, forgetting how little we know about its particular genesis. I have written elsewhere of my conviction that it was above all a yearning for immortality that drove Hokusai at the age of seventy to the specific depiction of Mt. Fuji, a mountain that both in older Japanese legend and in local Edo mythology had powerful associations with rebirth and longevity. I continue to feel that the *Thirty-Six Views* was above all a personal spiritual quest, the result more of one man's life cycle than of any developments in woodblock print technology.

At the same time, such technical changes were of great importance. One innovation now routinely cited in discussions of the *Thirty-Six Views* is the popularity of the imported pigment Berlin blue, particularly in the *aizuri* mode using only blue in several shades. It has long been known that ten of the prints in the *Thirty-Six Views* were issued in *aizuri* (or *semi-aizuri*, with the sparing addition of other light colours), most likely as the very first in the series. Here I wish to look more closely at the *aizuri* fad itself by re-examining the key documentary evidence, and to propose a broader framework for understanding the introduction of Berlin blue into Japanese prints, and the particular appeal of this new colour for Hokusai. I hope to show that this blue colour was more than just a novel pigment: in its expressive power, Berlin blue worked both to enhance Hokusai's intentions in designing the *Thirty-Six Views* and to articulate the changing worldview of nineteenth-century Edo popular culture.

The 'Blue Revolution'
The 'blue revolution' in ukiyo-e will be evident to anyone who attempts to trace a steady chronological sampling of surviving Edo nishiki-e over the hundred-year history of the medium from 1765 to 1868. During the Bunsei period of 1818–30, blues seem to become steadily more varied and prominent, and then suddenly a strong bright blue emerged as the dominant colour of the Japanese print in about 1830, and came into full flower in the succeeding Tenpō era (1830–44). This 'blue revolution' was most conspicuous in landscapes; indeed, I would argue, it was critical to the great burst of landscape energy of the early 1830s, with Hokusai's *Thirty-Six Views* as the crucial catalyst. But the same shift occurred in all other genres of ukiyo-e as well, often well in advance of landscape.

It is now common knowledge among those who study Edo prints that the key factor in this 'blue revolution' was the imported pigment known as 'bero', or Berlin blue (in English, often 'Prussian blue'). This common sense, which is constantly re-circulated in books and catalogues of ukiyo-e, may be traced back to one crucial piece of documentary evidence, a passage from a miscellany entitled *Masaki no kagura*, by an Edo book dealer whom we know only by his trade name of Seisōdō and *haikai* name of Tōho. The passage was first introduced in 1918 by Asakura Musei, and is now routinely cited in any discussion of the introduction of Berlin blue into ukiyo-e. As we shall see, it is a persuasive piece of evidence, filled with particular detail. Given the general paucity of documentary materials for the history of ukiyo-e, evidence like this commands interest and respect.

Detail, Fig. 2. Keisai Eisen, Morokoshi sansui (Landscape of China), 1829. Aizuri fan print in Berlin blue; 24.1 x 30.2 cm. Courtesy of the Brooklyn Museum of Art. Gift of Frederic B. Pratt (42.91). Photo: Justin Van Soest.
Before taking a close look at the passage from *Masaki no kazura*, however, we must recall that before it was introduced in 1918, no one gave much thought at all to the dramatic appearance of bright blues in Tenpō-era prints. Western collectors were highly sensitive to the qualities of this blue, which they came to know as ‘Hiroshige blue’, but they assumed it to be something uniquely, even mysteriously, Japanese. When Edward Strange, a pioneer British scholar of Hiroshige, gave a talk to the Japan Society of London in the spring of 1910, for example, a member of the audience queried him about the colours in Hiroshige’s prints, in particular the ‘indigo’ that was ‘quite different from that used by our own painters, and a colour possessing much beauty’. Strange, who was as ignorant as his questioner of the fact that Hiroshige’s ‘indigo’ was actually of European chemical manufacture, proceeded to describe ‘the old Japanese tradition’ by which natural indigo was extracted from old blue rags, yielding ‘the extraordinary quality it possessed’. Strange’s opinion was followed without qualification by Kojima Usui four years later in the first serious Japanese-language study of Hiroshige.⁴

If Strange or Kojima had bothered to question any printer or publisher of traditional nishiki-e, of whom many were still around in late Meiji, they would immediately have learned that ‘Hiroshige blue’ was none other than *bero*, Berlin blue – not native indigo. But scholars of ukiyo-e, Western and Japanese alike, were in the habit of blaming much of the ‘decadence’ of late Edo nishiki-e on inferior and gaudy imported colorants, and were hence unwilling or unable to countenance any such possibility. More generally, scholars of ukiyo-e have devoted only marginal attention to the technical and economic foundations of printmaking, a neglect that remains unchanged today.

Once Museli had introduced the *Masaki no kazura* account of the introduction of Berlin blue in *Ukiyo-e* magazine, however, the information circulated rapidly. It was quoted in Ishii Kendō’s *Nishiki-e no hori to suri* (The Cutting and Printing of Nishiki-e) in 1929, and in Uchida Minoru’s *Hiroshige* in 1932, and later appeared under the entries for ‘bero-at’ in Yoshida Teruji’s *Ukiyo-e jiten* (Ukiyo-e Dictionary; 1945) and for ‘ai-e’ in the *Genshoku ukiyo-e daihyakka jiten* (Encyclopaedia of Ukiyo-e Illustrated in Colour; 1982).⁵ So today, everyone knows that ‘Hiroshige blue’ is really Berlin blue. But the passage from *Masaki no kazura* has never been corroborated, nor in any way questioned. Here I would like to take a fresh look at the passage and its credibility: please refer to figure 1 for the relevant section of the manuscript copy of *Masaki no kazura* in the Tokyo University Library.⁷ It comprises the final section of a discussion of the various pigments used to print surimono and nishiki-e, and reads as follows:

The ‘Chinese blue’ (*tōai*) mentioned above [as used in admixture with safflower red (*beni*) to produce green⁸] is known in Dutch as ‘berorin’. This pigment was first used in surimono in 1829. One day when I visited Ooka Unpō,¹⁹ he said that only dayflower blue (*ai-gami*) and indigo blue were used in surimono, but that it might be good to try *berorin*. [I am from Yotsuya in western Edo and run a publishing business.]¹⁹ So I obtained some and tried using it on a surimono, finding that it had a special lustre in comparison with dayflower blue. In this way, everyone came to use it on surimono with *kyōka* and *haikai*. At this time it was not yet used on nishiki-e, but in the following year the fan-maker Isoea Sōbei of Horie-chō 2-chôme¹² printed and put on sale a fan by the artist Keisai Eisen [a student of Eizen] with a landscape of China, and on the other side a view of the Sumida River, done in both light and dark shades of the single colour *berorin*. This proved extremely popular, which other fan-makers observed and then put on sale large numbers of all-blue *aisuri* fans. Among book publishers, Nishimura Yohachi of Bakuro-chō published the *Thirty-Six Views of Mt. Fuji* by Hokusai, printed in *berorin*. This led again to a great fad, double that of the fans, and from this point *berorin* came to be used in many other nishiki-e as well. I thought it might also be a good idea to use it as a blue ink for grading *haikai*.
Even though *Masaki no kazura* appears to have been compiled more than a quarter-century after the events described,13 the many precise details of this account are compelling, and Tōhō’s occupation as book seller and avocation as haikai poet make him a credible witness. Until now, however, none of the details of this account have ever been corroborated, either the first section in which Tōhō claims to have personally introduced Berlin blue into *surimono* in 1829, even before (he claims) it was used in *nishiki-e*, or the following section in which he describes the publication of a new type of fan print by Eisen in ‘both light and dark shades of Berlin blue’ and a consequent fad for such *ainzuri* prints in Edo that led directly to Hokusai’s *Thirty-Six Views*.

As one crucial piece of corroboration for Tōhō’s account, I here wish to introduce what I am convinced must be one side of the actual Eisen fan print that Tōhō describes, that depicting a ‘Landscape of China’ (*Morokoshi sansui*) (fig. 2), from the collection of the Brooklyn Museum of Art in New York.14 As we shall see, this print corresponds in almost every aspect to the description in *Masaki no kazura*, differing only in mistaking the given name of the publisher as ‘Sōbei’ rather than ‘Sōemon’, and – more importantly – in the presumed date of publication, which Tōhō claimed to be 1830, whereas the Brooklyn print bears a censor’s seal of 1829. This suggests that the *Masaki no kazura* account is generally credible and accurate, but also urges caution with respect to the particular details.15 In any event, the time is ripe for a much closer look at the exact circumstances in which Berlin blue suddenly became such a dominant colour in the ukiyo-e palette in the years 1829–31, thereby enabling a clearer view of the exact process and broader meaning of the ‘blue revolution’ in ukiyo-e.

**Blue in Prints before Bunsei**

Before the appearance of imported Berlin blue in *nishiki-e* of the late Bunsei period, the blue pigments available for printing were few in number and encumbered with various disadvantages. The two basic mineral pigments used for blue in painting, azurite (*iwa-gunji*) and smalt (*hana-gunji*), provided rich hues but only in particle sizes that were too coarse to yield smooth colours when printed with woodblocks. In addition, the cost of such mineral pigments was in all likelihood prohibitive for ordinary *nishiki-e*.16

Thus, the only practical colorants for printing in blue were two vegetable colours, each with certain limitations. One was extracted from the petals of dayflower (*tsuyukusa*) and stored in the form of dyed pieces of paper known as *aigami* (‘indigo paper’, although no true indigo was involved), which in turn became the common name for the colourant itself. *Aigami* yields a lovely blue when printed, but it is
sensitive to light and especially to humidity, which leaves areas of pale brown on many of the surviving prints on which it was used.17 (It remains in use among dyers of cloth today for drawing the outline designs in yūzen paste-resist dyeing, since it disappears when the fabric is rinsed in water.) Aigami was nevertheless widely used in ukiyo-e for its pleasing colour; indeed, the ‘blue revolution’ may be more dramatic with hindsight than in fact it seemed at the time, since considerably more aigami must have offered itself to the eyes of contemporary customers than to later collectors and scholars. We need to recall, in particular, that the sky and water in many landscapes of the pre-Bunsei era, now reduced to an unappealing yellow-brown, were once a fresh and lovely blue. It was at best, however, a fairly light tone of blue, and could never produce deeper or brighter shades.

The other organic blue was natural indigo (tade-ai), which was widely used in both prints and paintings. The pigment was fairly costly, however, since it had to be extracted either from the surface froth of fermenting indigo or from cloth that had already been dyed with indigo, both laborious processes that yielded ‘indigo sticks’ (aibō, or, as in Tōhō’s account, airtō, ‘indigo candles’, after the cylindrical form) for use by painters.18 Indigo also has a low tinting strength, so that relatively large amounts are needed to achieve good colour. It will fade over time with

exposure to light, although it is much more stable than dayflower. Finally, the hue of the extracted indigo pigment tends to the greyish green, yielding fairly dull blues when printed.

At the same time, it seems clear that the quality of indigo aibō and the techniques used to print it were improving throughout the Bunsei period, prior to the regular use of Berlin blue in Edo nishiki-e after 1830. This improved use of natural indigo effectively marks the first stage of the ‘blue revolution’ in Japanese prints. A striking example is the Kunisada triptych ‘Mokubojō bosetsu’ (Evening snow at Mokubojō), as seen in figure 3, which has been dated circa 1820 on stylistic grounds by Sebastian Izzard. According to the scientific analysis of Shimoyama Susumu and Noda Yasuko, the several shades of blue on the women’s kimonos and the bokashi gradations on the water are all printed in natural indigo. The effect is so striking that it is easy at first glance to mistake it for Berlin blue, as I myself did in an earlier version of this article. At any rate, examples like this clearly demonstrate that by the early 1820s, natural indigo could be printed to much more striking effect than ever in the past.

The Growing Import Trade in Berlin Blue

Berlin blue had been known in Japan for well over half a century when it began to appear in prints of the Bunsei era, first in Osaka and then in Edo. Described as ‘the first of the modern pigments’, it was discovered by accident in about 1704–06 by a colour-maker in Berlin who was searching for a cheap substitute for cochineal red. The new colourant spread rapidly throughout Europe in the 1720s and on to the New World and Asia in the mid-eighteenth century.

The first known reference to Berlin blue in Japan appears in Hiraga Gennai’s Butsurui hinshitsu (The Qualities of Natural Products) of 1763, a catalogue of various unusual items and raw materials that had appeared in a series of exhibitions in Edo. Gennai claimed that it was a ‘deeper and brighter colour than azurite’, and presumably, the actual pigment was already available through the Dutch or Chinese in Nagasaki. A similar description, derived from Gennai’s, appears in a 1778 text of Satake Shozan, the daimyo of Akita and leader of the ‘Akita School’ of painters active in Edo at the time. It has been claimed that the pigment was actually used in certain paintings of the Akita School, although probably never in great quantities.

Before going further, some explanation of terminology is in order. In Dutch trading records of the time, the pigment was known as ‘Berlyns blauw’, from which came the Japanese

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Source: Miyashita Saburō, ‘jinkō kōro (Pusshien buri) no mozo to yunyu’, in Arisaka Takamitsu and Asai Misuzu, eds., Ronshū Nihon no yōshaku III (Osaka: Seibunbō Shuppan, 1995), 131–4. Figures have been rounded to the nearest kin (21.2 oz, 600 gram) or monme. In cases where a shipment was auctioned in lots, the italicized figure is the average of the highest and lowest prices.

* The nationality of the shipment for 1782 is not specified, simply designated as ‘meshage;’ the figures have here been placed under China for convenience.

** No price records survive for these years.
transcription 'bereinburau' that appeared in Gennai's account. All succeeding Japanese terms were derived from 'Berlin'. The earliest known appearance of the abbreviated form 'bero' was in a letter of the Edo painter Ishikawa Taïrô in about 1800, and it is this term that seems to have become the most common among artists; this is the word, for example, that appears frequently in Hokusai's painting manual of 1848, Ehon saishiki-tsû (Picture Manual on the Use of Colouring). Tôhô in his account used the longer form 'berorin', while other writers used 'heru' (or 'beru', or 'peri'). (It is worth noting, incidentally, that 'bero-aï' ['Berlin indigo'], which is widely used in modern Japanese accounts, appears in no surviving Edo texts, and is probably a modern coinage.) Finally, the Sino-Japanese term used for the pigment in the Nagasaki trade was konjô, which combines two characters for 'blue' and does not refer to a place of origin.

In contrast to the Dutch use of 'Berlin', the most common term in English since the later eighteenth century has been 'Prussian' blue, the word that is normally used in most modern writings about the pigment (although there are dozens of other variants). In keeping with both Dutch and Japanese usage in the early nineteenth century, I would insist on the form 'Berlin blue' (or, in Japanese, 'bero') when discussing its Edo-period history. One final usage of interest is the term 'tôai', mentioned by Tôhô, which I have found nowhere else. Although I have translated it as 'Chinese blue', it might be more accurate to call it 'foreign blue', since the term tô (the character 'Tang', as in the dynasty, also read kara) could indicate a generic foreignness, not exclusively Chinese.

Until we have some extended research into the actual use of Berlin blue in paintings, the most important evidence for its spread in Japan at this point is that of the record of imports of the pigment itself through the port of Nagasaki. Some such evidence was first introduced by Sasaki Seiichi in an important 1985 study, but a more recent investigation by Miyashita Saburô, a specialist in the history of medicines (the trade category in which painting pigments were included), provides a far clearer picture of the changing pattern of the import trade in Berlin

Berlin Blue Imports to Japan, 1817–34 (For data source, see Table 1)
blue. His statistics are presented in table 1 and in the graph on the previous page summarising the changes in price and quantity for the key period of transition, 1817–34.

Assuming that these figures are fairly complete, six phases in the import of Berlin blue to Japan may be discerned:

I. 1782–97: sporadic imports, entirely by the Chinese, at low prices (range 18–37 silver monme per kin).

II. 1798–1809: imports are more frequent but still sporadic, mostly by the Dutch (often hiring American ships) at high prices (range 59–251 monme).

III. 1810–16: no imports by either the Chinese or the Dutch (the latter having suspended all trade with Japan during these seven years).

IV. 1817–23: imports are resumed, now on an annual basis, entirely by the Dutch, starting at very high prices but declining rapidly (from 456 to 108 monme).

V. 1824–28: a decisive period of transition in the import trade in Berlin blue, as the Chinese re-enter in steadily increasing quantities, far surpassing earlier levels, and at prices that decline steadily (from 87 to 31 monme). The Dutch continue to trade in quantities comparable to their earlier level, but the price declines and the Dutch withdraw from the trade after 1828.

VI. 1829ff: the trade is almost entirely in Chinese hands until the mid-1840s, when the Dutch re-enter the trade but at far lower levels than the Chinese. The price remains at consistently low levels, although the Dutch product is more costly.

In spite of the fluctuations in the period before 1817 (which largely reflect interruptions in the Dutch trade because of the Napoleonic Wars), the overall pattern suggests an increasing demand for the pigment in Japan from the end of the eighteenth century. This is corroborated by an intriguing story related by Miyashita of efforts by a scholar of Dutch learning named Shibue Chôhaku in the first decade of the nineteenth century to manufacture the pigment by following the recipe given in a Dutch encyclopaedia. The effort failed, but demonstrates a strong Japanese interest in procuring the colourant. The steady increase in the trade after 1817 confirms this growing demand.

Before considering the actual uses of the pigment, however, the dramatic drop in price in the middle of the 1820s as the trade shifted from Dutch to Chinese ships demands some explanation. Sasaki Seiichi was the first to detect the sudden price decline, although he did not have access to trade statistics of the detail that Miyashita has provided. As an explanation, Sasaki put forth the provocative theory that the Chinese in the 1820s had begun to manufacture Berlin blue, which they were then able to sell at much lower prices than the European product imported by the Dutch.

The far more complete figures unearthed by Miyashita, however, cast doubt on Sasaki’s hypothesis of Chinese manufacture, for which no corroborating evidence on the China side has yet been found (although few have looked). Ever since the 1790s, the Chinese had consistently sold Berlin blue in Nagasaki at prices far lower than the Dutch, sometimes at levels not very much above those after 1825. The long-term decline in the wholesale import price of the pigment probably reflects the increased competition between the Chinese and the Dutch for a growing market in Japan, together with a general decline of the manufacturing costs in Europe with stepped-up production. The decisive change, then, was a rising demand for Berlin blue in Japan, coupled with the ability of Chinese merchants to satisfy the demand at increasingly economical prices, in turn enabling the spread of the use of the pigment in popular prints.
Berlin Blue in Paintings and Prints

The obvious question remains: what was the source of the rising demand for Berlin blue? Until the 1820s, I would speculate that the demand came largely from painters, particularly those aspiring to a Western or ‘Dutch’ style. We have the account of a visitor to Nagasaki in the 1790s that paintings in the Dutch manner used Berlin blue as a basic pigment, and we may imagine that a good deal of the import was consumed in Nagasaki itself. But we also know that some went to the national distribution centre of Osaka, where, for example, Kimura Kenkadō, a man with strong interests in both natural history and the arts, is known to have sold a quantity of Berlin blue to the Edo Dutch-style painter Ishikawa Taio̊, probably in about 1800, for a price equivalent to 400 monme per kin. In all likelihood, a careful scientific investigation of Dutch-style paintings in Nagasaki, Osaka, and Edo in the period from the 1790s would reveal numerous uses of Berlin blue.

The use of Berlin blue in prints, however, is a different matter, given the wholly different economics of commercial reproduction for a popular audience. At first, a certain resistance may have come from the reputation of Berlin blue as an exotic import for Dutch-style painters. In fact, however, the pigment was perfectly suited for the blue of colour woodblock prints, in which mineral compounds such as azurite or smalt could not be effectively used because of the large particle size. Berlin blue, by contrast, is very finely divided and prints more smoothly and evenly than dayflower or indigo. Moreover, it can both duplicate and extend the intensity and range of tones possible with either of those colours. Berlin blue may initially have cost more by weight than the domestic organic blues, but its high tinting strength meant that a tiny amount went a long way. From a printer’s standpoint, Berlin blue was in every way superior to the existing blue colorants, which it would almost totally displace by the early Tenpō period.

But when did Berlin blue first come to be used as one of the colours in the polychrome nishiki-e sold on the urban market? According to Seisōdō Tōhō’s account in Masaki no kazura, the new pigment was only used in Edo nishiki-e after 1829, the year in which he himself claims to have used it on surimono. And indeed, the use of Berlin blue has not yet been positively identified in any Edo single-sheet nishiki-e that can be firmly dated earlier than the appearance of Eisen’s fan print in the summer of 1829, despite claims to the contrary by Sebastian Izzard and Shindō Shigeru. Interestingly enough, however, the situation was entirely different in Osaka, where Berlin blue was used in certain actor’s prints and surimono from at least the early 1820s. The first such case to be reported was an Osaka surimono by Nagayama Kōin datable to 1825, which was noted by Roger Keyes in 1984 and thereafter frequently cited in the English-language literature on ukiyo-e as evidence of the date of the first introduction of Berlin blue into ukiyo-e. I have since discovered a still earlier Osaka use of Berlin blue, in an actor print by Shunkōsai Hokushū, showing Ichikawa Ebijūrō I in the role of Chienai in the kabuki play Kiichi Hōgen sanryaku no maki, performed in the eleventh month of 1821 at the Naka Theatre (fig. 4). Recent research by Matsui Hideo suggests that the wholesale transition from indigo to Berlin blue in Osaka actor prints came in the year 1825, fully five years earlier than Edo. Although further investigation is needed to ascertain the precise nature of this transition, Matsui’s preliminary findings are very provocative.

It seems plausible, as Sebastian Izzard has suggested, that Berlin blue was still a ‘luxury, high-priced import’ in the early Bunsei period and hence used only in small quantities. In this connection, I would like to introduce another set of revealing statistics that Miyashita Saburō has managed to unearth. These come from the records of an Osaka pharmacist, Ōniya Chōzaburō, for whom Berlin blue was a major item of import trade in the late Tokugawa period – second only to ginseng in the ledger space allocated to it. For the years 1823–26, these records provide both the prices paid for Berlin blue at Osaka wholesale auctions and the retail price at which it was then sold. The records continue through the year 1845, but with no further indication of the wholesale prices. Miyashita was able, however, to obtain wholesale price figures for the years 1834 and 1841 from a separate document. His figures are summarised in table 2.

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Table 2: Wholesale versus Retail Prices for Berlin Blue, 1823–26, 1834, 1841

<table>
<thead>
<tr>
<th>Year</th>
<th>Nagasaki Wholesale Price</th>
<th>Osaka Wholesale Price</th>
<th>Osaka Wholesale Mark-up</th>
<th>Osaka Retail Price</th>
<th>Osaka Retail Mark-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>1823</td>
<td>108</td>
<td>138</td>
<td>28%</td>
<td>217</td>
<td>57%</td>
</tr>
<tr>
<td>1824</td>
<td>105</td>
<td>124</td>
<td>18%</td>
<td>244</td>
<td>97%</td>
</tr>
<tr>
<td>1825</td>
<td>90</td>
<td>93</td>
<td>3%</td>
<td>241</td>
<td>159%</td>
</tr>
<tr>
<td>1826</td>
<td>42</td>
<td>79</td>
<td>88%</td>
<td>223</td>
<td>182%</td>
</tr>
<tr>
<td>1834</td>
<td>28</td>
<td>32</td>
<td>14%</td>
<td>213</td>
<td>565%</td>
</tr>
<tr>
<td>1841</td>
<td>27</td>
<td>38</td>
<td>41%</td>
<td>151</td>
<td>297%</td>
</tr>
</tbody>
</table>

Note: These figures are from the records of the Osaka pharmacist Omiya Chōzaburō. All prices are in silver monme per kin.

Source: Miyashita, 128, 132–33. The figures have been averaged for each year and rounded off.

These figures, although incomplete, are provocative. They reveal that the steady decline in the wholesale import price of Berlin blue in Nagasaki during the mid-1820s was not matched by any corresponding drop in metropolitan retail prices, even with the dramatic increase in the quantities imported after the Chinese reentered the trade in 1825. We are missing the figures for years between 1826 and 1834, but the pattern of declining wholesale prices and steady retail prices remains the same. The most likely explanation is that a small number of medicine dealers were able to monopolise the market for Berlin blue, and to maintain retail prices at levels that guaranteed increasingly large profits.

This pattern suggests in turn that the gradual and piecemeal increase in the use of Berlin blue in Osaka prints of the early 1820s was a reflection not of its cost, but rather of short supply, at least until the dramatic increase of import volume from 1825, which helps explain the rapid rise in the use of Berlin blue in Osaka prints that is indicated by Matsui’s recent research. One revealing bit of evidence that indirectly supports this hypothesis appears in Chūryō manrōku (Jottings by Chūryō), a miscellany by an Edo botanist named Satō Chūryō published in 1826. Satō described the Dutch method of painting used by Japanese artists in Nagasaki (which he had observed on a visit there in the 1790s), and observed that ‘recently there has been a great fad for these paintings in Edo as well, but they are mere curiosities, executed in ignorance of the correct method. What they sell on the market are paintings on a ground of crushed clamshell [gofun], using indigo [seika] as a substitute for Berlin blue [peru]’.

This clearly suggests that Berlin blue was not yet easily available in Edo for such inexpensive paintings, and the most likely reason is short supply. The same would presumably be true for prints, although Izzard’s assertion that the colour would also be used in Edo prints of a ‘luxury’ type remains suggestive: surely some Edo artists and publishers had gotten wind of the use of bero in Osaka prints, and it would not be surprising to encounter isolated Edo examples of its use in the mid-1820s. For the time being, however, the explicit testimony of Seisōdō Tōho on this matter must remain the default presumption, namely that Berlin blue was first used in surimono in 1829, and that ‘at this time it was not yet used on nishiki-e’. It should be noted, incidentally, that none of the surimono with Berlin blue that Tōho claims to have produced in 1829 have yet been identified. If his account is accurate, however, a systematic search for an Edo surimono datable to 1829 using Berlin blue may be in order.

Finally, there remains one further possibility of the use of Berlin blue in Edo prints before 1829, not in the surimono or nishiki-e mentioned by Tōho, but rather in book illustrations. My tentative hypothesis is that it was precisely in this format, in the mid-1820s, that both Berlin blue and the all-blue aizuri style came together for the first time in the work of Keisai Eisen. But before introducing the evidence, it is necessary now to go back in time and look at the precedents for aizuri prints in general.
The Growing Appeal of Monochrome Blue on White

Aizuri, or the printing in monochrome blue on a white background, is the specific format, we are told in Masaki no kazura, that triggered an unprecedented fad for blue at the end of the Bunsei period. The term aizuri had long been used for textiles dyed in indigo on a white ground of silk or ramie, and later cotton, using such methods as wax resist or stencils. In works on paper, the use of indigo either as a substitute for black ink (sumi) or in mixture with it, seems to have precedents in both China and Japan, although they remain to be documented. In the Edo period, however, the painting of pictures in monochrome blue was unusual before the Bunsei period. The earliest example mentioned in the literature is a puzzling reference to ‘pictures printed in blue (aizuri-e) pasted to Chinese fans’ in Kyoto in the Hōei period (1704–11). No such fans are known, nor is it clear what they might have looked like. A far more important precedent that does survive is the printed book Arima rokkei (Six Views of Arima), published in Kyoto in 1770, which features six landscapes of the Arima hot springs (located inland from the modern city of Kobe) and accompanying Chinese poems (fig. 5). This work was printed in a single tone of natural indigo, revealing the characteristically blue-grey hue of that pigment. Although apparently an isolated example, Arima rokkei reveals the distinctive sense of distance and refinement imparted by the exclusive use of blue.

A precedent much closer to the Bunsei era, although still a Kyoto production, is a small, curious copperplate etching printed entirely in a single shade of indigo blue (fig. 6) that was first introduced by Matsuki Hiroshi in a 1983 commentary on the origins of the aizuri prints in Hokusai’s Thirty-Six Views of Mt. Fuji. It is a curious view of a Western scene (identified by the Kobe Municipal Museum as ‘felling a tree’, although it appears that it may rather depict an execution) by the Kyoto artist Inoue Kyūkō, and bears a date of Bunka 12 (1815). Other Kyoto copperplates – some of them landscapes – are known in aizuri states, but none bear such an early date as this one. Of particular interest on this print are five radiating creases in the paper, suggesting that it was once mounted on a folding fan.

It is entirely plausible that these Kyoto aizuri etchings were known in Edo, and may have provided a direct inspiration for Eisen, the critical figure in the introduction of aizuri to Edo. Matsuki introduces evidence that Eisen was actually acquainted with one of the Kyoto copperplate artists, Naka Isaburō, who may well have provided the idea. At any rate, Eisen
designed a small number of frontispiece illustrations for printed novels in the mid-1820s that were not only in the all-blue aizuri style that had already appeared in Kyoto, but that also seem to have been the earliest known use of Berlin blue in Edo. These illustrations were executed with only a single block, in one shade of Berlin blue, and appeared in the type of novel known as ninjōbon, ‘books of sentiment’, the earliest known example being Nokinarabi musume hachijō of 1824, which includes a fine panoramic view of the city of Kamakura (fig. 7). Two years later, similar aizuri prefaces with illustrations attributed to Eisen appeared in all three volumes of Kuruya zōdan (Tales of the Brothel; 1826) (fig. 8). An important caveat is in order, however, concerning these single-block aizuri illustrations in Berlin blue, which even though originally published in the mid-1820s may possibly be reprints dating from 1830 or later, and the first editions may have been in black (sumizuri). A report in fact exists of such a sumizuri edition, but this does not necessarily mean that it preceded the aizuri version, since later reprints were typically in cheaper and simpler formats. It would be necessary to compare both editions closely to determine which came first, a task that remains for future research. For the time being, however, I wish to propose that these single-block illustrations in Berlin blue by Eisen from as early as 1824 may mark a preparatory stage for the emergence of aizuri in the full nishiki-e technique that he would finally create in the fan print of summer 1829.

Apart from these specific precedents for the printing of blue – whether indigo or Berlin blue –

on white paper, a much broader and more pervasive spread of a blue-and-white aesthetic was underway in early nineteenth-century Japan in two key areas of daily life: clothing and ceramics. Indigo-dyed cotton (aisome) had been spreading steadily since the early Edo period, and by this time had virtually become the national dress of commoner Japan. In rural clothing, the dye was very dark, almost black, although often patterned with white, but in the city of Edo, indigo also was dyed in lighter and brighter hues for summer yukata using the nagaita stencil technique that had been perfected by the Kansei period. By Bunsei, yukata in medium-sized (chigata) blue patterns were the normal summer wear for the people of Edo, and it was a natural extension of this distinctive blue-and-white aesthetic to Eisen’s innovation of summer fans printed in blue on white. It was also in Bunsei that indigo was making its way literally into the people in the spread of tattooing among the certain groups of artisans and labourers, with blue emerging as the dominant colour – as we see in the tattooed heroes of Kuniyoshi’s various Suikoden print series from late Bunsei that themselves served as model designs for Edo tattooists.

The other realm of blue-and-white in daily life was sometsuke, white porcelain with cobalt blue designs. It was precisely in the early nineteenth century that blue-and-white porcelain was diffusing widely and rapidly among commoners, not only traditional Hizen ware, but the ‘new ware’ (shinsei-yaki) blue-and-white from the Seto kilns that rapidly emerged from the Kyōwa period (1801-04). Recent archaeological excavations, for example, show a steadily increasing percentage of blue-and-white porcelain among the ceramic utensils used in Edo daily life in the early nineteenth century. Thus, surimono and nishiki-e of the Bunka-Bunsei era also offer increasingly frequent depictions of blue-and-white utensils as well as indigo-dyed cotton, often with landscape designs. A good example is a Hokusai surimono of 1822 incorporating the ‘Eight Views of Ômi’, with the landscape designs appearing on various items of daily use, notably a blue-and-white porcelain bowl and an indigo cotton hand-towel (fig. 9), showing in a single image the two key modes for the expansion of blue-and-white designs in daily life that provided a crucial matrix for the ‘blue revolution’ in nishiki-e. It may, in fact, have been precisely blue-and-white porcelain landscapes that inspired Eisen to design his ‘Landscape of China’ to which we must now turn.

Eisen’s ‘Landscape of China’ and the Fad for Berlin Blue Aizuri

Against this background of an increasing taste for blue on white, we must consider the second part of the Masaki no kazura account, in which Tôho writes that in the following year [1830], the fan-maker Iseya Sôbei of Horie-chô 2-chôme printed and put on sale a fan print by the artist Keisai Eisen ‘with a landscape of China on one side, and a view of the Sumida River on the other, done in both light and dark shades of the single colour berorin’. We should first note a key piece of documentary evidence that corroborates Tôho’s account, namely Eisen’s own claim just a few years later in 1833, when he wrote for his own entry in his revision of the Ukiyo-e ruikô (Lineages of Ukiyo-e Artists) that he ‘did many fan prints, and the recent nishiki-e in aizuri became popular as a result of his invention (kufû)’.

The fan print from the Brooklyn Museum of Art that I wish to introduce here corresponds almost exactly to the details given in Masaki no kazura. It is signed ‘Eisen ga’, followed by a seal ‘Eisen’, while the publisher’s mark to the lower left on the surface of the pond is that of Iseya Sôemon of Horie-chô 2-chôme – the ‘Sôbei’ of Tôho’s account surely being a simple error of memory. The colourant is pure Berlin blue, as confirmed by chemical tests at the Brooklyn Museum of Art conservation laboratory. And it is clearly a ‘landscape of China’, an unusual theme in ukiyo-e prints, complete with a poem in Chinese followed by the seal ‘sansui’, the term for Chinese-style landscapes. The crucial divergence from Tôho’s account is the date, which appears just before the censor’s ‘kiwame’ seal as a date seal reading ‘ushi’ (year of the ox), or 1829 (Bunsei 12) – not 1830 as the term ‘following year’ (yokumen) of Tôho’s account clearly indicates. In fact, I believe, 1829 makes much more sense as the year in which the fad began.
believe that this one-year discrepancy was simply an error of Tōho’s memory; we must recall that Masaki no kazura seems to have been composed some twenty-five years after the events described here.64

A further key correspondence with the Eisen print is the phrase ‘done in both light and dark shades of the single colour berorin’. Whereas Eisen’s earlier book illustrations in Berlin blue had been in one uniform shade, with a single block, the fan print has been executed in the full nishiki-e technique, involving as many as seven or eight printing steps: a key-block in very dark blue, two or three additional colour blocks for lighter tints, and still more steps for the gradations at the top of the print and elsewhere. It is a quantum leap in technical sophistication beyond all other previous examples of aizuri printing in Japan.

Eisen’s ‘Landscape of China’ skilfully displays the potential of this new type of aizuri, which by using multiple blocks and gradations enabled delicate variations on a single colour. The obvious precedent for such variations was the use of sumi in ink painting, according to classical principles of ‘nākan’ – exactly the ‘light and dark’ technique that Tōho described. Various high-quality illustrated books of the Kanō, Nanga, and Shijō schools had in fact already achieved these painterly effects in printing. Rarely, however, had these techniques been mobilised for single-sheet nishiki-e. Nor had it occurred to anyone to handle a colour in the manner of sumi, which was the essence of Eisen’s ‘kafu’, made possible by the extraordinary versatility of Berlin blue. (It should also be noted, however, that sumi itself may well have been mixed with Berlin blue in this and later prints in the new multi-shade aizuri manner, in order to achieve darker and more subdued tones of blue.)

Before turning to the ‘Landscape of China’, we must pause to recall that it constitutes only one-half of Eisen’s accomplishment as reported by Tōho, namely ‘a landscape of China, and on the back side a view of the Sumida River’. The view of the Sumida remains to be discovered, although a somewhat later aizuri riverside landscape by Eisen gives a sense of what it might have looked like.65 In referring to the Sumida view as the ‘back’ (ura), however, Tōho implies that the Chinese landscape was the ‘front’ (omote) of the fan, and his primary focus of interest. Why then did Eisen choose a Chinese landscape for his new technique of multi-shade blue printing? The
Ukiyo-e ruiō tells us that Eisen himself had 'a fondness for Song and Ming pictures', so perhaps personal taste was involved, although it had not yet revealed itself in any of the artist's own landscape prints. Perhaps Eisen also wanted to draw attention to his new 'invention' by using an unusual theme. Or perhaps his decision was related to the perceived 'Chinese-ness' of the pigment used, the 'Chinese blue' (tōai) described by Tōhō.

I would propose, however, that the most important inspiration for Eisen's 'Landscape of China' was blue-and-white porcelain with Chinese-style landscape designs. The subtle gradations and wide tonal variations of the cobalt blue underglaze offered a challenge to the printer that was comparable to replicating the tones of ink-painting in sumi. The possibility that porcelain designs in general may have inspired aizuri prints was suggested by Kojima Usui in 1929, but the specific Chinese landscape connection makes the case even more persuasive for the Eisen fan print. From the early Tokugawa period, Arita ware with Chinese-style landscapes had circulated throughout Japan, disseminating many of the set features we see in the Eisen print: figure 10, for example, shows an Arita dish of the later seventeenth century with a design roughly comparable to that of the Eisen landscape. By the Bunsei period over a century later, large dishes (ōzara) with landscape designs were becoming increasingly common. Such large dishes were produced in considerable quantity from the Bunka period onward, especially in the form of the Hizen ware known as Shida-yaki, the majority of them with landscape designs. Figure 11 shows a Shidayaki plate of the Meiji period that reveals a clear similarity to the Eisen print in composition and taste. We are reminded that the Chinese landscapes with which ordinary Japanese were most familiar were neither paintings nor printed book illustrations, but rather the blue-and-white porcelain that remains a familiar element in ordinary Japanese food service today.

Whatever the inspiration of Eisen's 'Landscape of China', we can see that it immediately announces itself as 'Chinese' in at least three distinctive motifs. One is the image of two figures, a stooped-over elder followed by a youth with a load, approaching a circle-arched stone bridge. Such bridges in Japan, where building in stone was rare and the circular form unusual, were always perceived as 'Chinese', even though they may have been replicated under such names as 'drum bridge' (taikobashi) or, for a double arch, 'spectacles bridge' (meganebashi). Moreover, the figures would always be read as a Chinese scholar with servant boy. Beyond the bridge to the left is a group of buildings that similarly announce themselves as Chinese, a dense assemblage of two-story earthen buildings, depicted on the gable ends in a distinctive manner (similar to Japanese-style earthen warehouses). The third distinctively 'Chinese' element is the Chinese poem and the seals and signatures, which together occupy their own textual space. The poem, of yet undetermined origin, is inscribed in a somewhat affected, presumably 'Chinese', style:

Fine moon-viewing by the edge of the pond,
as friends in groups stroll by,
rousing the dozing water birds,
which rise in a cloud of mist.

Of the four seals that follow, 'Sansui' (Landscape) and 'Eisen' declare the theme and artist, followed by the kiwame and cyclical year seals. Whereas the guild that produced single-sheet ukiyo-e and illustrated books was required to show a generic 'kiwame' seal in this era, the fan print guild alone was expected to add a seal for the exact year – a chance advantage for the historian.

One final motif worth mentioning is the full moon – usually a sign of autumn, and here perhaps used consciously in conjunction with the blue colour to provide a tone of coolness to the summer fan. By blending with the 'ten-bokashi' gradation along the top, it suggests simultaneously a bright moon in a dark sky and a rising moon in a pale evening sky. The full moon was of course common in Japanese-style landscapes, but here it also complements the
‘Chinese’ quality of the image. In a witty optical manoeuvre that was not unknown but certainly rare in traditional landscape painting, the same moon, ringed by the same dark clouds, is shown reflected off the surface of the pond just in front of the bridge.

Whatever prompted Eisen to use a ‘landscape of China’ for one side of his fan in the new aizuri technique, the theme does not seem to have enjoyed any sustained popularity. There survives an aizuri fan print of a Chinese landscape by Sadahide dated 1840, over a decade later, and Eisen himself around the same time designed two well-known vertical diptychs (kokemons-e) of Chinese landscapes, one of which (fig. 12) seems to echo back to his earlier fan print in its composition.69 Many of Hokusai’s great landscapes of the 1830s of course incorporate elements of Chinese landscape style, but prints as overtly ‘Chinese’ as this fan print of Eisen remained unusual.

Tōhō’s account goes on to relate that in the wake of the success of the Eisen print, other fun-makers hastened to issue their own aizuri fan prints in Berlin blue. Since we now know that the Eisen print appeared in 1829, not 1830 as related by Tōhō, I would speculate that when the print first appeared in the summer of 1829, it was already too late in the season for other publishers to respond with new prints in Berlin blue, so the summer of 1830 launched the real vogue for the new type of aizuri fan print devised by Eisen. In fact, two surviving fan prints in Berlin blue with a date of 1830 have already surfaced. One is from the collection of the Brooklyn Museum of Art, a Kunisada landscape entitled ‘Miho no ura’ (Miho Shore) (fig. 13), and the other is an untitled print of summer flowers by Sadahide (fig. 14).70

Each of these striking prints pushed the new aizuri technique in new directions, as different from one another as from Eisen’s Chinese landscape. Kunisada’s ‘Miho Shore’ with Fuji in the distance eliminates almost all lines, relying on a diversity of gradations to achieve subtle effects of clouds and recession in space. Sadahide’s depiction of summer flowers, in contrast, relies on very fine lines in the dark blue key-block (possibly an admixture of Berlin blue with sumi or indigo), over which are printed five separate shades of blue to distinguish among the tangle of ten or more different plants, creating a novel effect. What striking summer fans these must have been, with their multiple shades of cooling blues! Both prints suggest how much the novelty of the multi-block aizuri technique generated a spirit of innovation in design and expression, thus paving the way for Hokusai’s Fuji series later the same year.

**Aizuri in the Conception of Hokusai’s Thirty-Six Views of Mt. Fuji**

Finally, we can turn to Tōhō’s assertion of a direct linkage between the fad for multi-block aizuri prints in Berlin blue that was begun by Eisen, and the publication of Hokusai’s *Thirty-Six Views of Mt. Fuji* by Nishimura Yohachi (Eijūdō). This connection has long been obscured by the persistence of Edmond de Goncourt’s misguided dating of the series as published ‘between 1823 and 1829’,71 an assertion that has found its way into so many books on ukiyo-e that it is still repeated today.72 The problem was compounded by Kojima Usui, who in a complex and detailed discussion of the dating of the Fuji series in 1931 basically supported Goncourt’s dating as plausible (although suggesting that the series probably terminated later, in about 1831).73 He reached such a conclusion despite the fact that he introduced as part of his argument a document that in fact is critical to disproving Goncourt’s dating; it is also basic to the story of aizuri in Berlin blue.

The document introduced by Kojima was an advertisement by Nishimura Yohachi for the *Thirty-Six Views of Mt. Fuji* that appeared at the end of another of Nishimura’s publications, volume 12 of Shōhon jitate (Stories in Promptbook Form; 1815–31), a series of kabuki-derived stories in the illustrated gōkan format by Ryūtei Tanehiko.74 The colophon date for this volume reads ‘Bunsei 14’, a year that would have corresponded to 1831, but in fact never came to pass, since the year-period was changed to Tenpō on the tenth day of the twelfth month of Bunsei 13 (1830). This means that the blocks for the advertisement were cut before the change,

probably in the eleventh month of 1830. The text of the advertisement, which is illustrated in figure 15, reads:

_Thirty-Six Views of Mt. Fuji_, by Zen Hokusai Iitsu; single-sheet aizuri. One view to each sheet, to be published one after another.

These pictures show how the form of Fuji differs depending on the place, such as the shape as seen from Shichirigahama, or the view observed from Tsukudajima: he has drawn them all so that none are the same. These should be useful for those who are learning the art of landscape. If the blocks continue to be cut in this way, one after another, the total should come to more than one hundred, without being limited to thirty-six.

The first question, of course, is whether this advertisement was intended to announce the beginning of the _Thirty-Six Views_, or whether possibly the series had in fact begun several years earlier, as Goncourt alleged. Kojima clearly assumed the latter, taking the phrase ‘if the blocks continue to be cut in this way, one after another’ (kono gotoku ooi chōkoku sureba) to mean that the series was already well under way. I agree that the text implies the series to have already begun, but not that a great many had already been published: the prospect of a final total of one hundred was surely no more than advertising hyperbole, a boast that the new series had already gained a popular momentum.

Kojima’s reaffirmation of Goncourt’s proposed date of 1823 for the commencement of the _Thirty-Six Views of Mt. Fuji_ was not seriously challenged until 1965, in an important article by Suzuki Jūzō. Suzuki first noted that despite a careful search through other Eijudō publications of the Bunsei era, he had been unable to find any earlier example of the advertisement; he also observed that the same advertisement was repeated several times over the next few years after 1830. He further noted that the text itself, taken at face value, reads like the announcement of a new series. Finally, he made note of the Masaki no kazura text, which clearly suggests that the series began in aizuri only in 1830 as a consequence of the fad in aizuri fan prints. Our new knowledge that the Eisen fan print in fact appeared one year earlier, in 1829, does not weaken the basic argument that the _Thirty-Six Views_ began as a new aizuri publication, precisely as Tōho recorded and as the Shōhon jiatae advertisement proclaimed.

Suzuki next considered the order of publication of the _Thirty-Six Views_, observing that the forty-six prints in the series can be divided into five distinct groups based on signature style. Although he clearly implied that each group was produced in a single time span, Suzuki cautiously avoided committing himself to any particular chronological order for the five groups — with the exception of group 5, distinctive to the ten ‘back Fuji’ (ura-Fuji) prints with the key-block in black rather than blue, which are universally accepted as a later supplement to the ‘front’ thirty-six. He did, however, list the groups in numbered order, from ‘1’ to ‘5’, and the reader must be forgiven for thinking that the order was something less than random. I would suggest that, in fact, Suzuki must have thought carefully about the order of his list, and even though he did not explain his reasons, we may detect the logic. He must have first observed that all the signatures could be immediately divided into two types by the name that the artist used: ‘Hokusai aratame Iitsu’ for group 1, and ‘Zen Hokusai Iitsu’ for all the other groups. Although the meaning is pretty much the same (‘Hokusai renamed Iitsu’ versus ‘Iitsu, formerly Hokusai’), it would on the face of it seem implausible for the artist to start with one name, change to another, and then return to the original name. And since the ‘back Fuji’ series that all agreed to be last used ‘Zen Hokusai Iitsu’, it only made sense to place the ‘Hokusai aratame Iitsu’ group at the beginning.

The implications of this issue for the history of aizuri are considerable, since it so happens that the ten prints in Suzuki’s group ‘2’ are precisely the only ten prints in the series that exist in aizuri states (including those with faint traces of other colours, which Suzuki termed ‘semi-aizuri’ [jun-aizuri]). The stakes were raised by the fact that group ‘1’ happened to include the three most daring and celebrated designs in the entire series, ‘The Great Wave’, ‘Red Fuji’, and ‘Shower Below the Summit’ — all of which by implication would have appeared first, before the aizuri experiment.
The issue was further complicated when, a decade later, the same publisher (Shibata) issued another reproduction of the Fuji series, as volume 13 of Utamakura. Kohayashi Tadashi, the commentator for the new volume, closely followed Suzuki’s earlier analysis but was more forthcoming about the order of production, asserting that the first two signature groups listed by Suzuki (which he termed A and B) must have preceded the next two (now C and D)?, As to the relative order of A and B, he reserved judgment, simply noting that the B group of 1850 might possibly have come first. Meanwhile, however, the order of the individual prints in 1851 might have been...
the new Shūeisha publication followed the exact order, ‘A’ through ‘E’, of Suzuki’s original list. Until this point, all reproductions of the Thirty-Six Views of Mt. Fuji – including the earlier Shūeisha reproduction for which Suzuki’s commentary was written – were usually ordered geographically, by the location of the sites depicted. With the wide distribution of the new Ukiyo-e taikan in a popular-sized edition in 1976, however, the impression was perpetuated by those who did not closely read the comments of Suzuki and then Kobayashi, that the aizuri group came after the group including ‘The Great Wave’ and ‘Red Fuji’.83

Kobayashi then went on to reconsider the issue several years later, in the commentary for a 1980 Hokusai exhibition catalogue. This time, he forcefully and persuasively argued that the aizuri group must have been the one that launched the series, rejecting any possibility that signature group ‘A’ (the one including ‘The Great Wave’) could have come first.84 Kobayashi’s decisive argument for the ten aizuri prints of group ‘B’ as the indisputable beginning of the Thirty-Six Views of Mt. Fuji was, needless to say, the evidence of both Masaki no kazura and the Shōhon jitate advertisement, the former noting that the series began as part of the aizuri boom of summer 1830, and the latter appearing in late 1830 to announce it as an ‘aizuri’ series and specifically referring to two of the prints that survive in a pure aizuri state.

Among Japan’s leading ukiyo-e experts, however, the issue of the relative order of publication of signature groups ‘1’ and ‘2’ (or ‘A’ and ‘B’) still remains contested, as revealed in a detailed article by Asano Shūgō in 2002 that re-examines the problem at length.85 After first praising Kobayashi’s 1980 article as an ‘excellent argument that smoothly incorporates various sources and skilfully lays out the resulting analysis’, Asano proceeds to focus on ‘one great flaw’, namely Kobayashi’s failure to explain the anomaly that results from placing Suzuki’s signature group ‘1’ as second in the order of publication, suggesting that the artist suddenly shifted from one name to another and then back again.86 Asano then launches into a detailed analysis of datable uses of both signatures, concluding that there was a clear break from ‘Hokusai aratame litsu’ to ‘Zen Hokusai litsu’ between early 1830 and early 1831. He seems to have overlooked other evidence, however, that shows Hokusai to have actually used both names alternately in the years 1825–30.87 Asano himself warns, moreover, that a ‘fundamental weakness’ in using name changes to determine the date of prints is that ‘there is almost no way to deal with the whimsies of the artist’. Hokusai, in particular, was an artist prone to such whimsies.

In the face of such uncertainty over the chronological order of the signatures, I myself remain wholly persuaded by Kobayashi’s argument from the evidence of Masaki no kazura and the Shōhon jitate advertisement that the series began as an all-aizuri production in the second half of 1830. Kobayashi went further still, and looked more closely at the actual content of the group of ten aizuri with signature type ‘B’ as further evidence of the timing. Building on his observations, I would now like to analyse more closely the location of the ten sites depicted, and the activities shown therein, which I believe will provide even more persuasive evidence that these must indeed have been the opening works of the series.

An Interpretation of Aizuri in Hokusai’s Thirty-Six Views

In his new commentary, Kobayashi offered fresh and provocative speculations on the thematic content of the ten aizuri landscapes. He first noted the geographic distribution of the ten sites illustrated, suggesting that they were intentionally chosen to encompass a wide range, appropriate to the beginning of the series. He then further observed that two of the prints included auspicious symbols that would have been appropriate to publication at the New Year of 1831. The objects in question are the festive kites in ‘Asakusa Honganji’ and the cranes in ‘Umezawa’.

If I were to push Kobayashi’s arguments even further, by suggesting that they provide a point of departure for sub-dividing the ten aizuri prints of signature group ‘B’ into two distinctive groups of five each, with one logically prior to the other. Roger Keyes had already suggested to me at the second international Hokusai conference Venice in 1994 that ukiyo-e prints often seem to have been published in sets of five – the same number, incidentally, that is traditionally used
for sets of utensils for eating and drinking. It immediately struck me that the ten aizuri prints naturally divide into two groups of five each on the basis of a simple technical distinction: the ‘pure’ aizuri that exist in states using no other colours than shades of blue, and the ‘semi-aizuri’ group in which all surviving specimens have the subtle touch of other colours – mostly pink and green, sometimes black – provided by additional blocks. Of the ten prints listed in note 78, the following five are known in ‘pure’ aizuri states: ‘Shichirigahama’ (fig. 16), ‘Tsukudajima’, ‘Ushibori’, ‘Suwako’, and ‘Kajikazawa’.

The chronological priority of the ‘pure’ aizuri group is strongly indicated by the fact that it includes the two prints – ‘Shichirigahama’ and ‘Tsukudajima’ – specifically mentioned in the Shōhon jitate advertisement. If we analyse this group more closely in terms of geography, moreover, we discover an intriguing commonality: all are intimately involved with the theme of water, both in the geographical locales and in the activities depicted. Specifically: the beach of Shichirigahama looks out to Enoshima, the site of a shrine dedicated to Benten, the goddess of water; the island of Tsukudajima lies at the mouth of the Sumida River and at the head of Edo Bay, the critical junction of Edo as a city of water; Ushibori is a strait that stands guard over the exit of Kasumigaura as it flows to the ocean, a key link in the great water system of the Tone River basin; Suwako is the lake that provides the source of the mighty Tenryū River; and Kajikazawa is the site of the rapids at the head of the Fuji River. In the human activities depicted, liquid links are also common: bailing water from the ship at Ushibori, casting fishing lines into the torrent at
Kajikazawa, and dragging towels through the river at Tsukudajima. And when plotted on a map, all of these strategic water sites encircle Mt. Fuji, heightening its symbolic importance as a source of water and rebirth. It is a powerful logic for the exclusive use of the colour blue, in its bright new bero incarnation, as the inaugural prints of the Thirty-Six Views.

For the second group of five, the emphasis seems to be on seasonality rather than locale, in accord with Kobayashi’s perceptive observation of New Year’s festivity in ‘Asakusa Honganji’ and ‘Umezawa’. In the first group, seasonal signs are few, the human presence minimal, and the mood tranquil. In the second group, however, we see in ‘Ejiri’ a stiff winter wind snatching the hats from travellers (fig. 17), while the two remaining scenes of ‘Mishimagoe’ and ‘Tōtomi Sanjō’ depict busy activity in the deep mountains. Whereas figures appear mostly in threes in the first five prints, they appear here in groups of five or seven. There is more wit, more busyness, more activity: overall, more of a New Year’s spirit. The added colours, although subtle, are appropriate to this more festive mood.

From these differences, I would hypothesise that the first group of five had already appeared in the late autumn of 1830, by the time that the block for the Shōhō jitate advertisement was cut, and that the remaining five were expressly designed for appearance at the New Year of 1831. Together, the two groups constitute a powerful and meaningful beginning of the new series, taking full advantage of the symbolism of water and rebirth in the colour blue. The question remains whether a similar approach can be pursued through the remaining signature groups of the Thirty-Six Views – a task that for now I will leave to the imagination of the reader. Let me simply
say that for the terminal date of the series, I would accept circa late 1833 as the most reasonable of the various dates that have been proposed.96

I might finally venture an opinion about the order of the Thirty-Six Views after the initial ten aizuri experiments. I imagine that with the gradual addition of colour into the ‘pure’ aizuri, and with Hokusai’s appreciation of the colour combinations thereby attained, he moved on to even more striking colour experiments of the sort that is epitomised by the ‘Red Fuji’. In other words, I believe that Suzuki’s signature group ‘1’ (Kobayashi’s ‘A’) came in time immediately after group ‘2’ (‘B’). What began as an experiment with shades of a single colour (doubtless encouraged or even demanded by the publisher in order to profit from the aizuri fad) thus moved inexorably in the direction of experimentation with other colours, and the colour combinations in turn encouraged more dramatic overall designs that would enhance the impact of those colours. But once this experimental stage was over, Hokusai fell into a routine colour scheme that characterised the rest of the series, while retaining the blue key-block and the heavy use of Berlin blue for sky, water, and cotton garments.

Let me return to the connection between Eisen’s ‘Landscape of China’ and Hokusai’s Thirty-Six Views of Mt. Fuji. It is particularly revealing to compare Hokusai’s ‘Shichirigahama’ (fig. 16) with the Eisen fan print. Suzuki Jūzō has already noted the ‘Chinese-like landscape style’ (kanga-fu no sansui yōshiki) of ‘Shichirigahama’,97 and I would go even further and propose a thematic resemblance between the two prints, in the broad body of water, the village by the shore, the clouds in the sky, and the distant mountain. This is not to suggest that Hokusai was inspired by the Eisen print; on the contrary, it is more likely that Eisen’s own landscape style had been influenced by Hokusai. The originality of Eisen’s ‘kajō’ was to pursue the unity of mood between the colour blue and this commonality of landscape style that is reconfirmed in ‘Shichirigahama’.

In the end, I believe that we must imagine the Thirty-Six Views of Mt. Fuji to have involved two critical components. On the one hand, precisely as Tōhō suggested, the publisher Nishimura was eager to take advantage of the new fad for aizuri prints in Berlin blue, particularly in the landscape style so effectively expressed in Eisen’s fan print. At the same time, the symbolic meanings of the colour blue, with its implications of water and rebirth, must have been of great personal appeal to Hokusai himself as he embarked on his ‘second life’.

**Blue Beyond Bunsei**

The opening prints in Hokusai’s Fuji series were by no means the only single-sheet aizuri in Berlin blue to follow the boom in summer fan prints, and they may not have been the first.98 The impact of the series, however, was immense. Although originally planned entirely in aizuri, the series soon came to include other colours, but the key-block remained in blue; even with the ten-print Ura-Fuji supplement using black key-blocks, Berlin blue remained a critical colour in the composition of every print.99

Just as the aizuri fan print boom begun by Eisen served to provoke Hokusai’s Fuji series, so in turn Hokusai’s success unleashed a torrent of landscape energies in the ensuing years of early Tenpō. This brief period, continuing at most to the late 1830s, witnessed the publication of the majority of the most creative and enduring masterpieces of the landscape print in Japan, particularly those by Hokusai, Hiroshige, Kuniyoshi, and Eisen himself. One notable series by Hokusai, the eight-print Shokoku taki meguri (Tour of Provincial Waterfalls), carried over from Thirty-Six Views the technique of a key-block in blue, to which were added various other colours, including other shades of blue. In all of the other landscapes of this period, however, both by Hokusai and his contemporaries, the key-block was its usual black, but the majority of such prints relied on an assertive use of Berlin blue in the colour composition. Sky and water were the most obvious places to use blue, but the colour appeared conspicuously in clothing as well. Note also that the distinctive green of Hokusai’s landscapes was itself a result of Berlin blue, in mixture with orpiment yellow (sekido). Indeed, a major consequence of the ‘blue revolution’ was a reconsideration.
of the use of other colours as well, depending on the ways in which they worked with this powerful and flexible blue.

Although landscapes offered the most fertile ground for inventive design with Berlin blue, Eisen’s invention of multi-shade aizuri was pursued throughout the following decade by a number of artists in a variety of formats. In many cases, small accents of red or yellow were added to the overall scheme of blue. A few of these were found in books, such as the illustrations by Kuninao for a ninjōbon in 1833–35, printed in shades of Berlin blue with red and yellow accents, or an unusual book of 1834 with illustrations by Kunisada and the entire volume printed in blue (although with single blocks). By far the most common use of pure aizuri prints was for summer fans, of which far more were printed than survive, since most were put into actual use and then discarded.

Beyond this, however, virtually all of the leading artists of the day designed single-sheet Berlin blue aizuri in a variety of genres, including bird-and-flower and beauty prints as well as landscapes. The formats were varied as well, from ôban triptychs to vertical tanzaku. Higuchi Kazutaka has prepared a preliminary list of these prints, but further research is required for a full inventory. Such prints were probably most numerous from the early to mid-1830s, but a new wave of popularity may well have been triggered by the restrictions of the Tenpō Reforms of 1842. The suggestion that aizuri only began with the Tenpō Reforms is clearly in error, but Kobori Sakae argued in a 1932 article that the reform edicts did provoke a ‘revival’ (fukkô) of aizuri prints, an assertion that seems plausible but that still remains to be documented.

More broadly, however, in every sort of nishiki-e print in the remaining three decades of the Edo period after Eisen’s invention, Berlin blue became undeniably the dominant colour, a trend that is clearly reflected in the large quantities of the pigment that were imported, especially after 1835 (see chart below). For the most part, it was used in combination with other colours, and in many cases, it expressed sky and water in landscapes. But it also appeared in warrior prints, actor prints, and beauty prints. Blue became what may be called the ‘modal colour’ of late Tokugawa popular prints.

**Total Berlin Blue Imports to Japan, 1817–62**

<table>
<thead>
<tr>
<th>Year</th>
<th>Quantity (kin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1820</td>
<td>10,000</td>
</tr>
<tr>
<td>1825</td>
<td>15,000</td>
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<tr>
<td>1855</td>
<td>45,000</td>
</tr>
<tr>
<td>1860</td>
<td>50,000</td>
</tr>
</tbody>
</table>

By weight in kin (= 600 g.), Dutch and Chinese combined
The Meanings of Blue

We may finally turn to the broader cultural significance of the ‘blue revolution’ in nishiki-e and attend to the complex meanings of the colour blue. To begin with, blue is strangely contradictory in the natural world. On the one hand, it has been called ‘the rarest colour in nature’, occurring only exceptionally in the colouring of plants, animals, and minerals. At the same time, the vast expanses of sky and water that have served as backdrops to most human activity until modern times appear most often to our eyes as blue. So blue is both very familiar, yet somehow distant; we cannot hold the blue of sky or water in our hands. Mineral blues such as azurite and ultramarine are rare and costly, so that it is mainly through the magic of certain chemical transformations, above all the oxidation of the plant element indigo to produce a blue dye, and the heating of cobalt compounds to yield a blue glaze, that we are able to bring blue directly into the objects of everyday life. Berlin blue itself was chemical magic, yielded by ingredients that themselves betrayed no hint of blue.

The most powerful function of indigo and Berlin blue in nishiki-e prints was thus to work the magic of bringing sky and water into the hands and homes of many ordinary Japanese. The depiction of the sky in particular was a fairly recent innovation even in the elite painting tradition of Japan. Before the mid-eighteenth century, the perceptual effect of blue skies was rarely even represented in Japanese pictorial art: the first artists to record such an effect regularly were probably Ike Taiga and Maruyama Ōkyo, in the Hōreki period (1751–64). In Edo nishiki-e, Kobayashi Tadashi has argued that Harunobu often provided a solid blue background to represent the sky, using a dayflower colourant that has in most cases faded to a faint yellow-brown. I personally feel that Harunobu’s background blue was conceptual, and not an expression of the perceived blue of skies. Later designers of landscape prints, however, from Toyoharu on, certainly intended the blue as perceptual, often with the confirming addition of well-defined white clouds. Kobayashi’s observation about the deterioration of dayflower is especially important, and may account for the strangely yellow colours in the sky and water of many landscape prints of the Bunka period by such artists as Hokusai, Shinsai, and Hokuju.

The pervasive expression of sky and water in nishiki-e after the ‘blue revolution’ of Berlin blue reflects a broad transformation in the spatial consciousness of ordinary Japanese in the later Tokugawa period. The cultural historian Nishiyama Matsunosuke has noted the emergence of a ‘culture of movement’ (kōdō bunka) in late Edo, consisting primarily of outdoor leisure activities, conducted largely for pleasure although often with an element of religious dedication. This was essentially the genesis of modern tourism, and was both expressed in and promoted by nishiki-e depicting the ‘famous sites’ (meisho). Increasing numbers of commoners were able to travel long distances within their own country and, in the process, to contemplate the look of new places. Inevitably, their way of looking tended to echo Edo prints of places, and these visions thus became filled with blue skies, clouds, and water, which were now confirmed as objects of contemplative appreciation. Even more strongly than in woodblock prints, this new consciousness was reflected in the simple doro-e ('mud pictures', after the opaque pigments used) landscapes that were sold to tourists in the streets of Bakumatsu Edo, all using generous amounts of Berlin blue to express broad expanses of sky and water.

Beyond this heightened visual sense of the national landscape of Japan as bounded by sky and water was the spatial sense of a world beyond the shores of Japan. At least two Japanese authorities have already posited a direct link between the colour blue and a longing for things foreign. The first was Sasaki Seiichi in his pioneering article of 1985 on the use of Berlin blue in the nineteenth century, in which he provocatively argued that this bright blue excited an exotic interest in the more advanced culture of the West, and specifically a ‘yearning for European science’.

Indeed, he claimed, this was true not only in Japan, but throughout Asia as the use of the pigment spread in the popular cultures of China and Southeast Asia. Then in a 1990 article, Kobayashi Tadashi took the argument further back in time, arguing for a connection between the
‘blue skies’ of Harunobu and a ‘longing for the West’ through the specific association of blue skies with Western painting.101

I am sceptical of Sasaki’s argument for Berlin blue, for which he offers no specific evidence, and even more so of Kobayashi’s application of a similar argument to Harunobu (whose blue backgrounds, as I have suggested, may not even represent the sky). I do feel, however, that this line of thinking has promise if the blue is extended to include oceans as much as skies, and the consequent sense of ‘overseas’ is expanded to encompass Asia as much as the West. As we have seen, Berlin blue in the Bunsei period was in certain ways linked with China rather than the West, through the term ‘Chinese blue’ (tōai) used by Tōho, through the growing Chinese domination of the trade in the pigment, and through the Chinese content of one side of Eisen’s pivotal fan print. Both in the ways in which it was actually used in prints and in the associations those uses provoked, the colour blue came naturally to signify the horizon where sky meets sea, beyond the islands of Japan. Blue stood not for either China or the West in particular, but for the broader world into which the Japanese were increasingly drawn. These meanings may well have been at work in other parts of Asia as well in the nineteenth century, as Berlin blue proliferated in popular prints and paintings in countries like China, Korea, and Thailand.102

A wholly different realm of meaning for blue in late-Edo prints was its association with the world of the spirits, particularly when used in pale tones. Silk dyed in a light indigo was the ‘water-blue’ of the formal robes (mizu-kamishimo) used to clothe the dead in Japan (or, in the case of seppuku, those preparing to die), and was hence commonly used in memorial portraits of actors, a genre that became increasingly common in nineteenth-century nishiki-e. It is from this usage in ‘death prints’ (shini-e) that Kobori Sakae characterised the colour blue as ‘tranquil and sad’ (seijaku aishū).103 Meanwhile, in kabuki drama itself, blue was the colour of villains, supernatural creatures, and ghosts. This effect is strong in the imaginative uses of Berlin blue by Kuniyoshi, whose prints of monsters and ghosts are filled with striking uses of blue.

Berlin blue thus ushered in a distinctive new era in the history of the popular colour woodblock print in Japan, one in which both the familiar landscapes of ‘famous places’ and the world of legends and the supernatural combined to create a powerful medium that gave voice to popular sentiment in times that proved increasingly distressing. Just as the new blue was emerging dominant in prints in the early 1830s, a new cycle of famine and reform began and would last over a decade, to be succeeded by a rapid series of foreign crises and eventually political turmoil. Whereas the tranquil landscapes, filled with familiar customs, offered consolation and stability in an era of mounting crisis, the otherworldly prints of ghosts and warriors provided metaphors for current events.

Beyond the symbolic and expressive qualities of Berlin blue, its brightness and durability enhanced the general appeal of colour prints for a wide popular audience. Berlin blue was the leading edge of a new wave of colourfulness that swept through the nishiki-e print from the 1830s, itself combining with yellow (particularly orpiment, or sekido) to create a strong bright green, and encouraging the use of much stronger shades of safflower red (beni) by printing in multiple layers to create hues that were deeper and brighter than the familiar pink.

The same general outlines of the story told here would be repeated four decades later, in the 1860s, with the import of a new generation of chemically manufactured pigments from Europe, the aniline dyes that would become such a familiar feature of early Meiji prints. Now, however, the colours were different: rather than the strong blue and green enabled by Berlin blue, the principal hues were purple and red. Although the details of this new chapter in the history of colour and culture in popular prints remain to be investigated, a similar change in popular consciousness seems clearly to have been at work, with aniline purple and red serving effectively to express the assertive new regime of ‘civilisation and enlightenment’. With the Meiji Restoration, red became the modal colour of another era with other priorities: where late-Edo blue was the colour of expanding space, Meiji red was to become the colour of accelerated time.
Author's Note

Much of the material in this article appeared earlier in Japanese as ‘Ukiyo-e ni okeru ‘buruu kakumei’’, Ukiyo-e geijutsu, no. 128 (1998), 3-26, but substantial revisions and corrections have been made to accommodate various new findings from the intervening years. The author is grateful for encouragement and expert advice from John Carpenter, Timothy Clark, Elisabeth West FitzHugh, Matthi Forrer, Higuchi Kazutaka, Sebastian Izzard, Katsuhara Shin’ya (Tatsu.ahara Inuki), Matsui Hideo, Antoinette Owen, William Paden, Amy Poster, Roger Keyes, Timon Screech, Shimoyama Susumu and Noda Yasuko, and Shinô Shigeru.


2. Musei Gakujin [Asakura Musei], ‘Ukiyo-e shigen’, Ukiyo-e, no. 41 (October 1918), 4–5; part 3 of this brief miscellany is entitled ‘Bero-aizuri no kigen’. Masaki no kazura was first printed in Mikan zukushi hyakushu, vol. 16 (Tokyo: Biseiando, 1928). The word masaki no kazura refers to a vine of the elderberry family (also teika kazura, or Trechispermum asiaticum), and was used in hokkai as a season-word for autumn.


7. Call number G29-715. This manuscript differs in minor ways from that used for the printed version in Mikan zukushi hyakushu (see note 2), the current whereabouts of which is unknown. For details of these differences, see the Japanese-language version of this article in Ukiyo-e geijutsu.

8. Safflower red, depending on how it is prepared, can yield a yellowish colour, which would account for the green (kusa, ‘grass’ colour) that Tôho reports here.

9. The printed version of Masaki no kazura in Mikan zukushi hyakushu does not provide voice marks (dakuten) for ‘heroin’; the Tokyo University Library manuscript provides no voice marks at all (except for some of the furigana), so I feel justified in suggesting that the initial syllable ‘he’ would most likely have been pronounced ‘he’.

10. Ooka Unpô (1765–1848) was a kanzushi retainer and literati painter who lived in the same Yotsuya area as Tôho.

11. This remark is set off parenthetically inwartgaki format; it seems abrupt here, but perhaps it is intended to explain why Tôho would be interested in prints.

12. Hôrie-chô, located northeast of Edo-bashi Bridge, was known for its summer fan merchants.

13. The surviving versions of Masaki no kazura are undated, but the latest date mentioned in the text of the Mikan zukushi hyakushu version is Ansei 2 (1855). Mitamura Engyo in his comments on the printed version surmised that it was compiled around this time; see Mitamura Engyo zenshû, vol. 23 (Tokyo: Chûkôkan, 1977), 306.

14. I am deeply indebted to Amy Poster, Curator of Asian Art at the Brooklyn Museum of Art, who first told me of the aizuri prints in the collection, and showed me the Eisen fan print.

15. A very different attitude towards the credibility of the Masaki no kazura account is taken by Shinô Shigeru in his commentary on the Eisen fan print in the catalogue of an exhibition of ukiyo-e from the Brooklyn Museum of Art that travelled to four Japanese cities in 1999; the first time that the print had ever been shown in Japan; see Nagata Seiji, comp., in Murakami Bijutsukan ukiyo-e meishiten (Masterpieces of Ukiyo-e from the Brooklyn Museum of Art) (Osaka: Sankei Shinbun, 1999), 104–5. Shinô claimed that Masaki no kazura was ‘nothing more than what just one person had observed’, and that reliance on it revealed ‘the problem of falling under the spell of written texts’. His own counter-arguments, however, seem to have been motivated largely by a desire to prove that Kunisada (of whose actor prints Shinô is a leading specialist) rather than Eisen was both the first ukiyo-e artist to use Berlin blue, and the first to use the multishade aizuri technique. For specific problems with Shinô’s arguments, see notes 44, 62, and 64 below.

16. Still a third mineral blue is ultramarine (from lapis lazuli), the most rare and costly of all pigments in early modern Europe; Japanese knew of this colour through Chinese reports but the pigment itself has never been found in paintings in Japan, according to Kazuo Yamasaki and Yoshinobu Emoto, ‘Pigments Used in Japanese Paintings from the Protohistoric Period Through the 17th Century’, Ars Orientalis, vol. 11 (1979), 14. In 1828, synthetic ultramarine became available in Europe, and has been found on late-Edo ukiyo-e paintings; see Elisabeth West FitzHugh, ‘A Pigment Census of Ukiyo-e Paintings in the Freer Gallery of Art’, Ars Orientalis, vol. 11 (1979), 37, in which synthetic ultramarine is reported as occurring in several paintings by (or attributed to) Hiroshige II.

18. Indigo sticks could also be prepared directly from the flowers (abalone) that appear on the surface of indigo vats while the dye is fermenting; it remains unclear which process was the more common for the production of indigo sticks in the Edo period. The printmaker Tatsuhara Inuki (who formerly used the name Katsuhara Shin’ya) has recently succeeded in recreating the technique of extracting indigo from dried cloth in order to make abî: for a brief mention, see Tatsuhara Inuki, ‘Edo nishi-e no shikisai ni tsuite,’ Hanga Kenkyûkai kaihû (The Association for the Study of Prints Newsletter), no. 13 (May 2003), 2.

19. Feller et al., 261, compares the fading rates of dayflower and indigo. While dayflower is highly fugitive, indigo is placed in the ‘intermediate’ category of lightfastness, with an ‘intended useful lifetime’ of twenty to one hundred years.


21. The specimen used for this analysis was from the collection of Katsuhara Ryûta, and is illustrated in Baren no kai, ed., Ukiyo-e: Edo no ishûten (Tokyo: Baren no kai, 1992), pl. 42. For the results, see Shimoyama Susumu, Noda Yasuko, and Katsuhara Shinya, ‘Hokuri-e fûki de mochiru sanjûgo keikô saku katoru ni yora Nihon kai ni ukio-e hanga ni shiyo saite chûsokuro yû no hinbai dôtei’, Bunraku kagaku, vol. 47, no. 2. The technique is a non-destructive method of identifying organic colorants through the use of a three-dimensional fluorescence spectrum; for a description in English, see Susumu Shimoyama and Yasuko Noda, ‘Non-destructive Determination of Plant Dyestuffs Used for Ukiyo-e’, Traditional Japanese Woodblock Prints, Employing a Three-Dimensional Fluorescence Spectrum Technique and Quartz Fiber Optics, Dyes in History and Archaeology, no. 14 (1997). The technique can provide a positive identification of either dayflower or indigo—but not of Berlin blue, which is inorganic.

22. Smith, ‘Ukiyo-e ni okoru “bunro kakumi”’, 5, where I wrote that the version of the tripptych in fig. 3 from the National Museum of Ethnology, Leiden, was a later reprint using Berlin blue. It is now clear, however, that this is not the case, both because the Leiden specimen must date from the latest from 1823 (when Jan Cock Blosshoff brought it back from Japan), at which point there is no evidence for the use of Berlin blue in Edo nishi-e, and because later visual inspection by Philip Meredith of the Far Eastern Conservation Centre in Leiden has indicated that the colours are indigo; scientific verification is pending. The author has also had occasion to inspect (although not to test scientifically) still another specimen of the same tripptych in the Edward Burr Van Vleck collection of Japanese prints at the Elvehjem Museum of Art, University of Wisconsin, Madison, which reveals the characteristic graininess of indigo printing and lacks the striking hue of pure Berlin blue in medium shades. Another preliminary indicator of Berlin blue that is possible with visual inspection is the penetration of the colour through to the back of the print, since indigo tends to remain more on the surface. Ultimately, however, only scientific tests can provide a positive identification of Berlin blue; see more on this issue in note 44 below.


27. Naruse Fujio, ‘Satuke Shozan no seiyô garon’, in Kumamoto, comp., Zoroku Akuta ranga, 24, says that Berlin blue was used for the shading on pen slips in Akita School paintings, and Higuchi Kazutaka, ‘Aizuri ekiyô-e hanga ni kansuru ichi-kûsatsu: Katsushika Hokusai no aizuri ekiyô-e o meguru’ (M.A. thesis, Keio University, 1993), 11–12, discusses the possible use of Berlin blue on paintings by both Shozan and Shiga Kôkan. These suggestions await scientific corroboration.

28. Sasaki, ‘Kiseki no Ajia ni okeru Pucshian bunro no tsutsuki’, 13 [149]; this was the spelling most commonly used in Dutch trade records at the time.

29. The letter appears in ‘Tsuchke no chûri’, a manuscript collection of letters addressed to Kimura Kenkado, as quoted by Koishikawa, ‘Ai-e shikô’, 16. The letter is undated, but must be before Kenkado’s death in 1802; Kenkado’s diary mentions Tairô in 1798 and 1801, suggesting that the exchange was around those years.

30. In Ehon saishôke-tai, Hokusai generally recommended the use of boro to provide shading, or for the pupil of a bird’s eye; see Carolina Rotta, ‘Hokusai’s Treatise on Colouring: Ehon saishôke-tai’, in Gian Carlo Calza, ed., Hokusai Paintings: Selected Essays (Venice: The International Hokusai Research Centre, University of Venice, 1994), 240–41.

31. For ‘heru’ (as well as the longer form, ‘heruensu’), see Katsurara Nobuyo (Intei), Kiyo shôban (1830 pref., printed edition 1897), 2 vols., ed. Kondô Keizô, vol. 1, 399; for ‘heru’, see Otosuki Gentaku in 1810, as cited in Miyashita Saburô, ‘Tairô konô (Pucshian bunro) no mato to yuutsu’, in Artiska Takahachi and Asai Mitsuki, eds., Ronkai Nihon no yôtaku III (Osaka: Seibundo Shuppan, 1995), 121; and
for 'peru', see Satō Chūrō, Chūrō monrokku (1826), in NHON yosshitsu kōshū, ser. 3, vol. 2 (1929), 71. 

32. The terms for Berlin blue used by the Chinese themselves at the time did refer to its European origin, namely yang qìng (‘Western blue’) and yang dian (‘Western indigo’); see Sasaki, ‘Kinsē ni okeru Purushan bunuru no tsuseki’, 18 [169–70].

33. Berrie, ‘Prussian Blue’, 191–93 lists dozens of variant historical uses in English and other European languages. According to Michel Pastoureau, Blue: The History of a Color (Princeton University Press, 2001), 132, ‘Berlin blue’ was the original name for the pigment, assigned by the chemist who discovered it, Johann Konrad Dippel, but the term ‘Prussian blue’ spread after the process was published in English by John Woodward in 1724.

34. The reading ‘tōai’ (rather than kara-ai) is from the furigana gloss in the Tokyo University Library manuscript.

35. There in fact exists a form of Berlin blue known as ‘Chinese blue’, described by Berrie, ‘Prussian Blue’, 195, as having a greenish undertone – but the connection with China is unclear.

36. Such an analysis has actually been carried out for various ukiyo-e paintings in the Freer Gallery in Washington, D.C., as reported in FitzHugh, ‘A Pigment Census of Ukiyo-e Paintings’, 34–37. This study indicates the presence of Prussian blue in seven eighteenth-century works (Groups 2–4), but subsequent revisions by the author, as reported in a personal communication of 16 October 1996, raise uncertainties about all of these.

37. Sasaki, ‘Kinsē ni okeru Purushan bunuru no tsuseki’.

38. Miyashita, ‘Jinkō konjō no mazō to yunyū’, 119–36. Note that Berlin blue was imported to Japan not through the official Dutch trade, but in the private trade (‘wakiri’ in Japanese, ‘vrijhandel’ in Dutch) that was permitted to individual crew members. This means that it rarely appears in official trade documents. Sasaki and Miyashita, however, were able to uncover records of the licensed Japanese merchants in Nagasaki who were involved in the private trade.

39. This was an erratic era for the Dutch trade because of the British threat to Dutch shipping in Asia as an extension of the Napoleonic Wars in Europe; the Dutch trade with Japan stopped entirely in 1795–96, and was then continued in the years 1796–1803 by hiring American ships. In the period 1804–09, a mixture of Dutch and other Western ships visited Nagasaki, and from 1810–16, the entire trade was once again suspended, resuming from 1817. For details, see Shinzo Sakunami, ‘Japan and the United States, 1790–1853’, Transactions of the Asiatic Society of Japan, 2nd ser., vol. 18 (1939), 4–11 and 174–90.

40. This story is recounted in Ran en tekihō, supp. vol. 7, an unpublished manuscript of 1810 by Osuki Gentaku, who translated for Chōhaku the relevant passage on Berlin blue from a Dutch version of Noël Chomel’s Dictionnaire oeconomique. Miyashita, 120–22. In addition, there is a report that Mitsuoki Genpō (Maki Bokuchū) did a translation from the Dutch in about 1845 (Kôka 2) entitled ‘Bunrinsu bunuru seibō’; see Shimura Izuru, ‘Onna-dainin no yōga’, Shirin, vol. 2, no. 1 (January 1917), 26 (reprinted in his Nihon tekkō kōgeki, Tokyo: Iwanami Shoten, 1925, 477). The whereabouts of this document, however, is unknown, and there remains no evidence that the Japanese ever succeeded in the manufacture of Berlin blue.

41. Satō Chūrō, Chūrō monrokku, 71.

42. The letter from Tairō to Kenkō-dō thanking him for obtaining the pigment is cited by Koishikawa, ‘Ai-e shiko’, 16. See note 29 for the date of the letter. The price cited was almost twice the Osaka commercial retail price of the mid-1820s; see table 2 below.

43. Katsuhara Shin’ya, drawing on his experience in trying to replicate Edo nihōki-e colours, believes that indigo was wholly displaced by Berlin blue, which could easily mimic indigo by admixture with sumi, and that aigami continued to be used only in mixture with safflower (beni) to yield a distinctive purple. (Personal communication, June 1996.)

44. More recent research by Matsui Hideo, director of the Koishikawa Ukiyoe Museum, using datable actor prints from the Waseda Theatre Museum, suggests that the transition from indigo to Berlin blue occurred rapidly, in the course of the year 1830, and was complete by 1831; Shirojima Suzumu, Matsui Hideo, and Shimoyama Yasuko, ‘Ukiyo-e hanga chakushokuryō no hi-hakai bunsekibō ni yoru purushan buri (bero-ai) dōnyū katei no kenkyū,’ presented at 8th International Ukiyo-e Conference of the International Ukiyo-e Association (Kokusai Ukiyo-e Kyōkai), Gakushuin University, 9 November 2003, abstracts of which appeared in the program for the conference, pp. 18–19.

45. In Smith’s, ‘Ukiyo-e ni okeru “bunuru kakugetsu”’ (1998), 5, I continued to believe that Berlin blue must have been used in Edo nihōki-e before 1829, but I have since been persuaded by the ongoing research of Matsui Hideo, using datable actor prints in the Waseda Theatre Museum, that this was probably not the case, although much further research is needed to confirm this. I had earlier been influenced in the first instance by the assertions of Sebastian Izzard, in his catalogue of a 1993 Kunisada exhibition in New York (Kunisada’s World) that Berlin blue was to be found in various of Kunisada’s prints of the mid-1820s. He specifically mentioned a painting that he dated to c. 1822 (pl. 26), a gōsa cover of 1824 (fig. 8, p. 28), a fun print dated 1825 (fig. 10, p. 29), and a variety of prints that he dated from the years 1824–28 (pls. 36, 39, 40–42, and 44). In only three of these cases, however (pls. 26, 39, and 44), did he indicate exactly which area of the print he considered to be Berlin blue, and in every case, it was a very dark shade, which is precisely the least likely candidate for Berlin blue, which can best achieve such dark shades only with admixture with sumi or natural indigo. It is now clear that such judgments with the naked eye are often unreliable, and that scientific tests are required to confirm the presence of Berlin blue; see notes 21, 53, and 63 for various such tests, and Berrie, ‘Prussian Blue’, 205–10, for a technical discussion of still other methods. Independently of the claims by Izzard for the use of Berlin blue in Kunisada’s prints before 1829, Shindō Shigenobu made similar assertions around the same time, which are summarized in his commentary on the Eisen fan print cited in note 15. Shindō claimed that the earliest use
of Berlin blue in ukiyoe-e was a death portrait (shiki-e) by Kunisada, the Kamigata actor, Arashi Rikan I (known previously as Arashi Kichiemon II and Arashi Kitsusaburō II), who died in the ninth month of 1821; for an illustration in colour, see Shindō Shigeru, Gototen Kunisada: Yobusoku no sekai (Tokyo: Guranraku Sha, 1993), 57. The print was published in Edo, presumably shortly after the death of the celebrated actor, who is shown in the pale blue robes that are associated with death. I myself am in ‘Ukiyo-e ni okeri “burua kakumei”’, 5 uncritically accepted this assertion by Shindō, but it is now clear that there is no foundation for claiming this to be Berlin blue, since such hues were easily obtained with natural indigo. Only scientific testing will prove this for sure, but in the meantime there is no reason to suspect Berlin blue in this print, nor is it clear on what basis Shindō made this claim. A much earlier example of a similar pale blue using indigo may be found on the shaved heads (sakuyaki) in four of Sharaku’s famous group of twenty-eight okubi-e actor portraits from performances in the fifth month of 1794, three of which have been shown by Gene Ferrell of the Straus Center for Conservation, Harvard University, to be indigo mixed with shell white gofun. (Personal communication via Roger Keyes, October 2003.) Shindō further claimed that it was possible to trace the use of Berlin blue in datable Edo actor prints of the 1820s, and that such an analysis revealed a ‘rapid increase’ (kyōbi) in the use of Berlin blue after about 1825. Like Izzard, however, he provided no scientific evidence that the colours involved were in fact Berlin blue rather than natural indigo, and I remain unpersuaded by Shindō’s claims. So for the time being, the use of Berlin blue in Edo nishiki-e before 1829 remains purely speculative, and I am now disposed to accept as accurate the testimony of Seisōdō Tōho in Masaki no kazara that he himself used the new pigment in Edo surimono in 1829, ‘it was not yet used on nishiki-e’. The question of illustrations in novels, mentioned below, is a different matter.

45. Keyes proposed that a small amount of Berlin blue had been used for the hat of an Immortal (semin) mounted on a crane depicted in a surimono by Nagasawa Rōbin (1765–1849), datable to New Year’s 1825; see Roger Keyes, Japanese Woodblock Prints, 42, 91, and 185. More recently, Higuchi Kazutaka discovered a surimono by the same artist datable to 1822 that may have also used Berlin blue; see Higuchi Kazutaka, ‘Aizuri ukiyoe-e hanga ni kaasari ichi-kōsatsu — Katrshika Hokusai e Keizai Eisen no beroizuri fukeiga o magatte’, Aizenbutsu Bijutsukan zasshi, no. 90 (February 1994), 15, note 1; the print is from the Museum für Ostasiatische Kunst, Berlin. See photograph in Steffi Schmidt and Sensoku Kusawara, Surimono (Berlin: Staatliche Museen Preussischer Kulturbesitz, 1990), 124–25.

46. The 1821 print is illustrated in Matsudaira Susumu, ed., Waseda Daigaku Taisho-ki hakuushi kinen [Engeki Hakubutsukan shozō shika-e zuroku 4: Zenki Kamigata-e, 2 vols. (Tokyo: Waseda Daigaku Taisho-ki Hakushu Kinen Engeki Hakubutsukan, 1995), cat. 4–148, and a preliminary visual identification of the original strongly suggested Berlin blue. This identification has since been positively confirmed by Masai Hideo using the three-dimensional fluorescence spectrum technique developed by Shimoyama Susumu (see notes 21 and 43). Matsui’s research, which awaits publication, is summarized in a report of February 2004, submitted to the Waseda University Theatre Museum, whose collection of Osaka actor prints Matsui used for his analysis.

47. Izzard, Kunisada’s World, 29. Here, however, Izzard was referring to the use of Berlin blue in Edo, whereas my own argument follows that is this better describes the situation in Osaka.

48. Satō Chiyo, Chiyō maoroku (1826), from Nihon zukiu taisetsu, ser. 3, vol. 2 (1929), 75. Sasaki Seichi had taken note of this passage in ‘Edo no dono: Sono “aazora” no seiri ni tsuite’, Műze, no. 864 (March 1977), 59 (reprinted in Nihon kindai bijutsu ren, 1, 141), but had argued from the evidence of Masaki no kazara that Berlin blue could not possibly have been so difficult for Edo artists to obtain at the time. Sasaki wrote this, however, before his discovery of the sudden transformation of the Berlin blue trade just at the time that Chiyō was writing.

49. An alternate term for aizuri widely used in the modern literature on ukiyoe-e is ‘ai-e’, which appears as an entry in both Yoshida Teruji’s Ukiyoe-e jiten and in the Genshokan ukiyoe dainyokika jiten. ‘Ai-e’, however, appears nowhere in Edo-period documents, and, according to Urushiyama Tendō, was probably first introduced by Ijima Hanjirō (Kyoshin) in his Nihon-e rukō (10 vols., manuscript, 1900); see Urushiyama Tendō, Nihon Nihon-e rukō (4 vols; Tokyo: Geien Shōko, 1920), vol. 1, 31–34. Most later writers have perpetuated the term ‘ai-e’, although Urushiyama himself used ‘aizuri-e’, adding ‘-e’ to aizuri; this likewise appears nowhere in Edo texts, and is probably Urushiyama’s own coinage.

50. The bluish qualities of black are implicit in the use of aizuri (‘blue sumi’) to refer to ordinary sumi and in the term setai (or uai-ai) to refer to the colour of eyebrows, which may have involved the use of indigo in cosmetics. It is said that in China and among Japanese bunjin ga indigo, printers, indigo was also sometimes mixed with ink to produce a ‘blue-black’ (seiboku) colour – not unlike the use of Berlin blue in modern times as an additive to newspaper ink to improve legibility. It was also reported in 1830 in Kyō shōran that calligraphy copybooks in the ‘rubbing’ style (shihitsu), in which white characters appear on a dark ground) printed in Berlin blue had recently been imported from China. See Kitamura Nobuyu, Kyō shōran (original preface, 1830; printed 1897, Konō Keizō, ed., 2 vols; reprint edition, Tokyo: Meicho kankōkai, 1979), vol. 1, 399. No such copybooks have been discovered, nor are they mentioned in any other source.


52. The original work was a handwritten book by Yūgō (1723–73), the abbot of Enman-ji and patron of Murayama Okyo, with poems by Kyoto aristocrats; it was then copied by the artist Karō Eiryō (1739–69) for the printed aizuri version. This book was noted by Miyake Gakutō, ‘Aizuri-bon’, Konoha, no. 13 (January 1913), 10. It is discussed by Higuchi, ‘Aizuri ukiyoe-e hanga ni kanshu
ichikōsatsu’ (1994), 6. Higachi also notes the use of indigo for the key-block of Kizan Masayoshi’s e-hokusai work ‘Edo meisho zue’, which also included other light colours.

53. In Arima rokkei, the preface and afterword (seven and three folios in length, respectively) are printed in block sumi, and the seven folios for the poems and paintings in indigo blue. As a preliminary means of identifying the blue pigment, I have first assumed that indigo and Berlin blue are the only two possible colourants for aiuri printing. (The technique is obviously problematic if the two pigments are mixed, as seems occasionally to have been the case.) To distinguish between indigo and Berlin blue, the original work was photographed with infrared film, using a red filter against standard samples in comparable shades of the two pigments in question, obtained from Katsushika Shinsaiya and printed by Katsushika Shinsaiya. In the infrared spectrum, indigo is far more reflective than Berlin blue and appears as light gray rather than black. (The only other blue pigment that behaves in this way is small, which is assumed to be an unlikely possibility.) The same procedure was used to determine indigo versus Berlin blue in three other prints reported below: Eisen’s aiuri illustrations in Nokonarabi musei ura iken’ei, and Kurawa zōdan were determined to be Berlin blue, and the Inoue Kyūki etching to be indigo. It should be stressed that this procedure is a rudimentary diagnostic tool, and cannot be used for more refined scientific techniques of pigment analysis that remain to be conducted on these works.


55. Matsuki, ibid. The evidence he cites is a letter to Takizawa Bakin by Eisen, accompanying a copperplate design that he had received from Naka; for the letter, see Mori Senzō, ‘Chosakudō o toboraru hitobito: Kyokutei Bakin no jinme’i’, Kokugakukai zasshi, vol. 40, no. 1 (January 1934), 74.

56. The presence of Berlin blue was ascertained for these works by the technique described in note 53.

57. The author of the novel was Nanzenshō Somabito II, who would later gain fame under the name Tamenaga Shunsai. The entire blue-printed preface consists of three to five folios for each of the four volumes; the total number of images by Eisen comes to ten. The existence of these early aiuri prefaces by Eisen was first noted in Kobori Sakaé, ‘Tempi kaikaku to nishi-kei’, Ukiyo-e geijutsu, no. 5 (1932), 43.

58. The author of Kurawa zōdan was Bisanji (Shōri Sanji). A sequel to this work, Hokusai tsai (2 vols.), published two years later in 1828, also has aiuri prefaces with illustrations by Eisen’s student, Keisai Senju, although it is not yet possible to test the use of Berlin blue in this case.


62. From Mumei-zu zuishitsu (1833), also known as Zoku Ukiyo-e rakan; see Yura Tetsuji, Sōsō Nihon ukiyo-e rakan (Tokyo: Gabanbo, 1979), 214. In his commentary on the Eisen fan print (see note 15), Shindō Shigeru claimed that in fact Kanisada, not Eisen, was the originator of the multi-shade aiuri technique. His argument is based on the fact that certain of Kanisada’s courtiers prints of the early 1820s were later reprinted in this technique. He offers no evidence, however, for believing that these were reprinted before rather than after 1829. I find it impossible to believe that if Kanisada had in fact himself invented such a new technique, he would have used it only for older designs. Nor would this explain the sudden fad for the technique after 1830 that Tōhō’s account describes.

63. The test results were reported in a letter to the author from Antoinette Owen, Conservator of Paper at the Brooklyn Museum of Art, dated 30 March 1994. The test, as described in Berrie, ‘Prussian Blue’, 205, involved the application of sodium hydroxide, which causes the loss of blue colouration in the case of Berlin blue.

64. Shindō Shigeru has proposed in his commentary on this print (see note 15) that perhaps it was first published in 1829 as the censor’s seal indicates, presumably in an ordinary array of colours, and then reprinted from the same blocks one year later as an aiuri print. This hypothesis really makes no sense, however, both because a radical experiment of this sort would surely demand an original design, and also because the Brooklyn print is clearly an early impression, not a reprint. In addition, as I argue below, the content of the print was likely inspired by the blue-and-white porcelain designs, and would not make sense in conventional colours.

65. One Japanese scholar claims to have once seen the ‘back’ side of the fan print that is said to have depicted the Sumida River, but he gives no indication of where it might be now; see Osawa Makoto, Keisai Eisen ten: Bōsatu 150-nen kinen (Tokyo: Ōta Kinen Bijutsukan, 1997), 97. A sense of what the missing side might have looked like is provided by an untitled single-sheet oban landscape in aiuri by Eisen, a riverside snow scene suggestive of the Sumida River; see Elvehjem Museum.

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66. Yura, Sōkō Nihon ukio-e ruiiko, 212, from the 1844 revisions by Saiō Gesshin.


68. Ogi Ichirō, Yokoyume Hitoshi, and Aoki Katsumi, Shitara-gama no sometsuke-zara – Edo kō-makkō no sakau a miru (Tokyo: Ribun Shuppan, 1993), 95–9, 102–3, 121. It should be noted, however, that not all ‘sansui’ designs were recognizable ‘Chinese’, many being executed in a more Japanese manner.

69. These two kakemono-e are illustrated in colour in Ukiyo-e ukiwa shōsetsu (Tokyo: Taibudokukan, 1931–33), vol. 16, figs 16 and 17, under the titles Gekkō ryōjin (Travellers Beneath the Moon) and Setchū sansui (Landscape in Snow). It is reported that the latter also exists in an aiwari version: Osawa Makoto, Ketsu Eken (Tokyo: Eikōsha, 1976), 383.

70. The Sadahide print was introduced in connection with the issue of Berlin blue ‘Goei Nari Oka ni okeru Murahisun burun no tsuki’i’, 16 [162], an error that led him to conclude that the aiwari prints came late in the series. The persistence of Congour’s dating is also noted by Richard Lane, ‘On the Dating of Hokusai’s Fuji’, Art & Arv., no. 23 (1986), 59–60. Lane’s article, which is repeated with minor changes in his Hokusai: Life and Work (New York: E. P. Dutton, 1989), 184–8, pretends to offer new sources and hypotheses about the dating of the Thirty-Six Views, but is in fact little more than a misunderstanding of the scholarship of Suzuki Jūō cited below.

71. Kojima Usui, ‘Fugaku sanjunorokkei no seisaku mondai’, Ukiyo-e shi, no. 24 (January 1931), 27–31, reprinted in Edo makkō no ukio-e (Tokyo: Azusa Shobō 1931), 58–64. Kojima’s elaborate argument relies entirely on evidence that the Fuji series could have been begun as early as 1823, because of an advertisement in Hokusai’s book Imayo kushi kiseru hiranagata (Fashionable Patterns for Combs and Pipes, 1823) for a forthcoming ‘Fugaku hattai’ (Eight Forms of Fuji), although no such work ever appeared; none of Kojima’s points serves to demonstrate that the series did in fact begin then.


73. A further problem is that Kojima misread the order of the text of the advertisement, since he mistakenly included the phrase ‘ichinai ni ikktzatsu oioi shippun’ within the main text, following the phrase ‘oioi chōkoku’, whereas it is clearly part of the heading. For the correct order, see the article by Suzuki Rūō cited in the following note.

74. Suzuki Jūō, ‘Fugaku sanjunorokkei shikken’, which appeared as a commentary for a set of photographic reproductions of the series, Katsushika Hokusai hitsu Fugaku sanjunorokkei (Tokyo: Shōzōsha, 1965); it was reprinted in Suzuki Jūō, Hōen to ukio-e (Tokyo: Bijutsu Shuppansha, 1979), 293–301; citations here are from the latter reprint.

75. Suzuki, 296. The advertisement was repeated exactly in 1832, and with additional lines for other publications in 1833, 1834, and 1835.

76. Good specimens of the aiwari states of these ten prints may be found in colour reproduction in the following three works: 1) Matthi Forrer, Hokusai: Prints and Drawings (London: Prestel-Verlag and New York: Royal Academy of Arts, 1991); ‘Kōshū Kajikazawa’, pl. 16 (Metropolitan Museum of Art, New York); ‘Shōzō Shōzō’, pl. 17 (Brooklyn Museum of Art); ‘Sōshū Shichirigahama’, pl. 18 (Chester Beatty Library, Dublin); ‘Josō Shōhō’, pl. 19 (Man Collection); ‘Kōshū Mishima’, pl. 20 (Peter Morse Collection); ‘San’ei Ejirō’, pl. 21 (Musée Guimet, Paris); 2) Nagata Seiji, ed., Hokusai bijutsukan, vol. 2: Ōtsuka (Shōzōsha, 1969); ‘Sōshū Umezawa no hidari’, pl. 36; ‘Tōtō Sannō’, pl. 69 (Peter Morse Collection); and 3) Zunbi Kato, ed., Fugaku sanjunoroken, Ukiyo-e taikei, vol. 13 (Tokyo: Shōzōsha, 1975); ‘Buyō Tsukudajima’, pl. 12; ‘Tōtō Asakusa Honjō’, pl. 11.


78. The two most authoritative recent writers on Hokusai in English, for example, have tended to accept the Shōzōsha Ukiyo-e taikei order as implicitly chronological. Matthi Forrer clearly understood the order in this way, as reflected in his dating of the individual prints in the exhibition catalogue, Hokusai: Prints and Drawings, nos. 11–38. A couple of years earlier, Richard Lane had been a bit more circumspect in Hokusai: Life and Work (New York: E. P. Dutton, 1989), 288, where he writes that he followed the Ukiyo-e taikei order ‘for convenience of reference’, but on page 185 he makes it clear that he ‘follows this tentative scheme’ of dating. In Japanese, Nagata Seiji, Katsushika Hokusai nenpyō (Tokyo: Sansui Shinsha, 1985), 173–77, sticks to a geographical order.


83. ibid., 76.}

84. I am grateful to Roger Keyes for pointing out that Hokusai used the name ‘Zen Hokusai hitsu’ in surimono
as early as 1825; see for example ‘Daikoku lifting a rice bale’ in Rogers Keyes, Surimono: Privately Published Japanese Prints in the Spencer Museum of Art (Tokyo: Kodansha International, 1984), cat. 117. pl. 30.

85. Kano, 7677, claims that there exist ‘pure’ aizuri states of ‘Asakusa Honganji’, ‘Umezawa hidari’, and ‘Tōtomi sanbō’, but I have yet to see any such examples. If so, this weakens but does not completely invalidate my hypothesis of two groups of five each.

86. No decisive evidence for dating the end of the series has been found, and all of the following proposed dates are speculative: Goncourt, 164: 1829; Kojima, 64: 1831; Lane, Hokusaï: Life and Work, 185: 1832; Kobayashi, ‘Katsushika Hokusai no Fugaku sanjūrokkei’, 96: 1833; Asano, Nishiki-e o yomu, 76: 1834; Forren, Hokusaï: Prints and Drawings, 37: 1835. I am most persuaded by the argument of Lane, Kobayashi, and Asano that the series was probably completed before Hokusai set to work on the book Fugaku tōyōkei (One Hundred Views of Mt. Fuji), of which the first volume was published in the third month of 1834.


88. Kuniyoshi’s series Sasuki meison-zukushi, for example, could have come earlier, although only the landscape backgrounds use the aizuri technique. See Suzuki Jūō, Kuniyoshi (Tokyo: Heibonsha, 1993), pls. 51–56; Suzuki dates this series to ‘Bunsei makki’.

89. The situation is actually more complicated, as revealed by the recent discovery by Shimoyama Susumu and Matsui Hideo that the key-block of many of the prints in the Thirty-Six Views was printed not in Berlin blue, but in indigo. Matsui was led to suspect indigo because a key-block proof sheet (kagotō) in his own collection of one of the prints in the series, ‘Koishikawa yuki no ashiita’ (Morning after Snow at Koishikawa) seemed suspiciously pale in colouring, and scientific tests proved it to be natural indigo. Shimoyama has shown that all of the ‘front’ thirty-six prints in the series use an indigo key-block, although the reasons for its use remain unclear. For an illustration of the proof sheet, see Suzuki Jūō, ed., Ippin ni miru ukıyo-e 250-nen; Matsui korekashon (Koishikawa Ukiyo-e Bijutsukan and Nihon Keizai Shinbunsha, 1998), fig. 97. Matsui’s finding was reported in Shimoyama, Matsui, and Shimoyama, “Ukiyo-e hanga chokusshoku yō ni yoru purushan burū (bōru-ai) dōnyū kateki no kenkyū” and in “Ni-shirin no to tsukaiwake,” Yamatogaku shinbun (evening ed.), 12 November 2003.

90. The work is a ninjōbon by Tanemaga Shunmu, Shushokoku tatsu no sono, 4 vols., 1833–35. As with earlier Eisen aizuri in books, only the introductions are printed in blue. A copy may be found in the Tokyo Metropolitan Central Library, Tōkyō shiryō, call no. 477–10.

91. This work, the first volume of Sono ura uma masago no shironami, from the Keio University Library, is introduced in Higuchi, ‘Aizuri ukıyo-e hanga ni kansuru ichi-kōsatsu’ (1994), 10 and colour pl. 1.


93. According to ‘Ukiyo-e nisan, sono shichō: Ai-e’, Kononana, no. 7 (July 1910), 13, the first to assert that aizuri began with the Tempō Reforms was Iijima Kyoshin in 1900 in Nihon-e tukō, under the entry ‘ai-e’. Asakura Muse in his 1918 ‘Ukiyo-e shigen’ (see note 2) claimed that the evidence of Masaki no kazura ‘destroyed this baseless theory held until now’ (jūrō no mōsetsu o daite suru), but Kobori Sakae, ‘Tempō kaikaku to nishiki-e’, Ukiyo-e geijutsu, no. 5 (1932), 44, while admitting the previous Bunsei boom in aizuri, claimed nevertheless a Tempō revival. It remains unclear exactly why the Tempō edicts, which did no more than limit nishiki-e to seven or eight colours, would have provoked aizuri, except perhaps as a kind of ironic response to the colour restrictions.


95. The earliest surviving Taiga painting with a blue sky appears to be Asama-asan shirikō zu (True View of Mount Asama); see Naruse Fujio, ‘Koe Taiga Asama-take shirikō zu ni tsuite’, Yamato bunka, no. 65 (October 1979), 21–33, and ‘Koe Taiga Asama-take shirikō zu ni tsuite (Hoi)’, Yamato bunka, no. 66 (March 1980), 59–70. See also Melinda Takeuchi, Taiga’s True View: The Language of Landscape Painting in Eighteenth-Century Japan (Stanford, CA: Stanford University Press, 1992), 40–47. Blue skies appear in various of Okyo’s megane-e paintings and hand-coloured prints of the Hōreki-Meiwa period.


97. As one example, see the group of eight Hokutei prints in the Musée Guimet in Paris, illustrated in Hires ukıyo-e tsukan, vol. 7 (Tokyo: Kōdansha, 1990), pls. 135–42. Unfortunately, it is difficult to prove scientifically the existence of dayflower blue once the colour has disappeared.


100. ‘Yōroppa kagaku no taikō sono muro ni mukerata dōkei’, Sasaki, ‘Kinsē no Ajia ni okeru Purushan burū no tsuiseki’, 13 [149–50].


102. Sasaki, ‘Kinsē no Ajia ni okeru Purushan burū no tsuiseki’, 13 [149].

103. Kobori, ‘Tempō kaikaku to nishiki-e’, 44. For a good example of the use of pale blue death robes, see the 1821 death portrait of Arashi Rikan (Kitssubarō) mentioned in note 44.