The first time I saw Konovalenko’s work, I wondered, had he trained at the Louvre or in the Moscow State University geology lab?

As a geologist I was amazed by his uncanny command of rocks and minerals, including the ability to polish and cut stones in ways that defy their natural cleavage planes, such as the highly fractured labradorite used to make the hat in Hunter on the Mark (Plate 237).

Many of Konovalenko’s sculptures take advantage of minerals’ natural “defects” and staining, showing that he had keen insights into the crystalline structure of minerals that might only be expected of a professionally trained lapidarist or mineralogist (Hagadorn and Nash 2011). An iconic example is the ferruginous (i.e., rust-colored) concretion that occurs in the quartzite he used to make the face of Ice Fisherman (Plate 238). Rather than polishing it out or avoiding it, he crafted it into a wart above the man’s right eye.
Minerals are the basic building blocks of the physical world, and all rocks and fossils are composed of them. Mineral properties are governed by their atomic structure and chemistry. Like girders in a building, a mineral’s atomic structure controls how easily it breaks, its crystal shape, its color, its shininess, and how readily it can be carved.

Most of his materials are composed of the same type of minute mineral crystals, packed together in a cryptic and uniform mass, like the crystallites of quartz found in window glass. These “amorphous” minerals include hard ones like agate, jasper, and obsidian and softer ones like malachite and cinnabar. Many of the silica-rich amorphous minerals Konovalenko used are called “Beloretsk quartz,” after the Russian region from which they are known.

Some of Konovalenko’s materials have a variety of different types of tiny crystals, arranged like a microscopic version of the salt-and-pepper texture of granite. Examples include the jasper shirt in Spring (Plate 239), the man’s lapis jacket in On the Stroll (Plate 240), and snowflake and mahogany obsidians used to make the woman’s shawl and the man’s vest in Gypsies (Plate 241, Plate 242). A few of his carving materials are composed of homogenous masses of big crystals, arranged like giant pointed teeth or warts to accentuate naturally jagged or bumpy textures. The amethyst bush in Spring (see Plate 127) is perhaps the best example, but the grape agate used as fur...
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hat lining in *Hunter on the Mark* (see Plate 237; see also Plates 181 and 182) and *Painter* (Plate 243; see also Plate 111) is also a striking example.

Although most geologists might be nonplussed by the boring homogeneity of many of Konovalenko’s materials, what sets Konovalenko apart from others is that he leverages their natural flaws to great advantage. In depicting fluids, he uses banded crystalline staining in amorphous quartzes to mimic rippling in water (*Fisherman III*, Plate 244), to depict liquids in buckets (*Fisherman II*, Plate 245), to evoke froth rings in a cup of tea (*In the Sultry Afternoon II*, Plate 246), and to produce beverages in punch bowls (*Brazhniki*, Plate 247). Together with patchworks of tiny vesicles with which he made water marks on the floor surrounding a barrel (*Barrel Bath*, Plate 248), such staining is also leveraged to evoke soapy or foamy water (*Laundress*, Plate 249).
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PLATE 244. Fisherman III

PLATE 245. Fisherman II

PLATE 246. In the Sultry Afternoon II

PLATE 247. Brazhnik
In animals and plants, stripe-like features conjure realistic fish scales and gill slits (Fisherman III, Plate 250). Rutilated quartz creates stalks of cut grass (Mower, Plate 251). Stone watermelons in In the Sultry Afternoon I are replicated by ruby enveloped by a natural rind of zoisite (Plate 252). In clothing, mineral laminations yield not only texture but patterns, such as skirt or petticoat ruffles illustrated with banded “sowbelly” amethyst crystals in Zemfira (Plate 253), sash stripes created by laminated jasper in Fisherman I (Plate 254), iron-rich inclusions to represent coat buttons in Picking Mushrooms (Plate 255), and cloth seams made by agate banding in the man’s pants in Fisherman II (Plate 256).
PLATE 250. Fisherman III
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PLATE 254. Fisherman I

PLATE 255. Picking Mushrooms

PLATE 256. Fisherman II
When depicting body parts, Konovalenko shines like a mineral grandmaster. Features such as the sagging man-breasts and belly of Tsar’s Henchman (Plate 257) are enhanced by nodular laminations in the magenta-colored ruby he used. Inclusions and alterations caused by the mineralization process itself serve to accentuate greying hair in the jasper beard of Painter (see Plate 205), whereas rutilated quartz yields coiffed hair in In the Sultry Afternoon II (Plate 258) and disheveled hair, beards, and moustaches in Organ Grinder (Plate 259) and Welcome (Plate 260).

Like a mythological seer, Konovalenko showed preternatural perception into opaque stone; he repeatedly undressed exteriors to productively reveal what he could not possibly have known was inside. The acme of this perception includes Fisherman I (see Plate 160), Fisherman II (see Plate 165), Bosom Pals (see Plate 81), and Painter (see Plate 111), where he circumnavigated staining in jasper to create the edges of faces, lips, and facial hair instead of gluing pieces of different colors together to create these effects.

Elsewhere, Konovalenko leverages hematite (i.e., iron oxide) inclusions in fine-grained quartzite to create liver spots on the toes of the woman in
Gypsies (Plate 261) and age freckles on the tops of hands in Ice Fisherman (Plate 262) and Fisherman II (Plate 265). Fractures and fracture staining in the fine-grained quartzite in Balalaika Player I (see Plate 145) and in the jasper in Fisherman I (Plate 264) accentuate protruding veins. Similar fracturing and staining in chalcedony accentuates wrinkles on the back of the old man’s well-used hands in Old Souls (Plate 265). My personal favorite is the single tear on the left cheek of Bereaved Mother (Plate 266), where a bleached linear impurity in the chalcedony implies the recent downward journey of a tear over the high left cheekbone of the heartbroken mother.

Leveraging these types of structures to accentuate skin textures comes at great risk, especially when working with raw materials that are inherently...
Plate 262. Ice Fisherman
Plate 263. Fisherman II
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PLATE 264. Fisherman I

PLATE 265. Old Souls

PLATE 266. Bereaved Mother
fractured. Natural fractures and fracture-fills in chalcedony enhance the wrinkles that naturally occur at our finger joints, but many fingers in Konovalenko's sculptures have broken and been repaired in cases where he tried to productively use such fractures. Witness the many repairs in hands made from quartzite and chalcedony in Gypsies (see Plates 175–177), Ice Fisherman (see Plate 262), and Woodcutters (Plate 267), to name just a few.

Even when polishing pieces, one of the last steps in assembling the raw materials of his sculptures, Konovalenko was a master of texture. Whereas most stoneworkers over-polish pieces, Konovalenko imbued his sculptures with different tones by leaving some pieces rough-polished and at other times giving them a glossy finish. Witness two nearly identical pieces produced at different stages of his career—Tsar's Henchman of 1970 (Plate 268) and Tsar's Henchman of 1979 (Plate 269). In the former, the henchman's shiny cinnabar belly seems improbable, but the eggshell polish of the later version, coupled with the ruby's natural striations, makes the body come alive.

To be honest, Konovalenko didn't always leverage materials well. In several cases he carved laminated minerals against their grain in a way that detracts from the natural lines to be expected of a feature. In Likbez, he oriented the natural banding of jasper perpendicular to what should have been the natural downward lineation of the blond man's hair (Plate 270). In Cossack, he oriented the chalcedony banding perpendicular to the natural facial lines in the man's forehead (Plate 271). In Welcome, he chose a pitted and stylolitic (i.e., serrated-surface) jasper for blond hair (Plate 272). Pockmarks detract from the piece and resulted in breakage along the right side of the boy's head. The choice of material seems odd, given that he used un-pitted pieces in other sculptures of the same vintage.

In some cases Konovalenko mismatched materials used to represent similar body features, such as the varieties of chalcedony used for the hands and feet in the blond youth and bearded man in Likbez. Here he employs darker quartz for the sun-hewn or ruddy face of the man and lighter quartz for his hands (Plate 273). But he sculpts one light and one dark hand for the blond-haired youth and one light and one dark foot for him as well, rather than give the youth sun-darkened hands and lighter feet or vice versa (Plate 274, Plate 275). The same color dichotomy exists in Picking Mushrooms, where multiple skin tones occur in the same figure, depicted by different varieties of chalcedony and jasper (see Plates 67 and 69). Clearly, Konovalenko had raw materials available to him that would have permitted placing dark hands and dark faces together and associating them with similarly toned or lighter-colored feet. Yet for some reason he still did not illustrate consistent skin tone within some individuals, or at least plausible skin tone variations, given the differential sun exposure of human faces versus hands versus feet. In Likbez and Picking Mushrooms he mismatched stone colors, conflating radically different skin tones from left to right hand, from left to right foot, and from foot to hand to face.

In some specimens this material mismatching could have been intentional, including the differently shaded sapphire eyes in the boy in Grandfather and Grandson (Plate 276); these color differences might reflect naturally occurring (but rare) heterochromia in the boy's eyes. Similarly, the seemingly "over-polished" Beloretsk quartz used for the fisherman's face in the DMNS's Ice Fishing (Plate 277) could have been intentional, with the sheen
reflecting the traditional greasing of exposed skin to protect it against cold and chapping.

In his early years, Konovalenko’s compositional aberrations might have resulted from lack of access to high-quality materials. His usage of malachite is a prime example. In his early work Danila, Konovalenko stitches together many small pieces of malachite to create Danila’s box (Plate 278) and employs a similar approach to create a shoreline of grass in Sultry Midday (Plate 70) and Picking Mushrooms (see Plate 66). These agglomerations appear odd given the continuity of minerals or rocks used for the rest of each sculpture. Later in his career, after moving to the United States, Konovalenko often used larger, single pieces of malachite or nephrite to create large sculptural components, such as the enormous yawning Hippo (see...
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Plate 270. Likbez

Plate 271. Cossack
Plate 279, the grassy patch in Grandmother (see Plate 91), and the shoreline in Laundress (see Plate 103), Grandfather and Grandson (see Plate 168), and Twins (see Plate 205).

Because malachite is neither a rare nor expensive mineral, the agglomeration of small malachite pieces to create one big piece seems an approach that might only be employed if suitable raw materials were not available.

The audacity of Konovalenko is that he used minerals, rocks, and fossils with impunity. His bold carving of a boy’s hair from treacherously pitted jasper...
in *Welcome* epitomizes his fearless mastery of stubborn stone (see Plate 272). Konovalenko's work evolved, as did his access to materials, and in his later work there are fewer mineral defects that detract from the intended lines of his work. With the exception of petrified wood, fossil agate, and the pearl used for the starry gypsy eyes in *Zemfira* (Plate 280), Konovalenko worked exclusively with minerals: inorganic, non-living, and unforgiving materials. He used at least forty different types from all seven of the known crystal systems and placed them together in combinations that would never occur in nature. He embraced their idiosyncrasies and imperfections rather than avoid them. He brought them alive with risky carving, subtle polishing, and by deliberately seeking their flaws. In so doing, Konovalenko greatly enhanced the stories he told with stone.

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Plate 277. Ice Fishing

Plate 278. Danila

Plate 279. Hippo
PLATE 280. Zemfira