Relations between Russia and the East have been examined by cultural historians, philologists, and art historians whenever they have undertaken a study of the Russian past. In its relations with Islam, Russia has variously been described as a shield protecting Europe from Asian invasions, as the European defending force pushing the Eastern menace back to the south and east, and as an advance guard of incursions from the eastern steppes into the heartland of central Europe.1 Europe or Asia? Depending on one’s point of view, whole schools of thought have been established centering on that question, and at times violent polemical battles have made their way into the political arena, often ending in the annihilation of the opponents.2

Both sides have always regarded the connection between Russia and the East as an unarguable, self-evident fact, even though concrete data have hardly ever been adduced to support it. Historiographic scholarship summarizing these conflicts appeared long ago, but the battle continues, while attempts at studying the problem in greater detail have either suffered from lack of research or have attempted to cover too broad a span of time and history.3 Still, the study of original sources goes on behind the smokescreen of historical/philosophical argument, though unfortunately most of it remains little known outside a narrow circle of specialists.

A survey of these data forms the core of this paper. It does not claim to cover the problem in its entirety, nor to have collected every appropriate document within the confines of a single article. Nor do we want to join the battle between Slavophiles, Orientalists, Eurasians, and Westerners. The goal is to present information that can render an accurate evaluation of the materials, emphasizing those finds and discoveries that have come to light in Russia, mainly in the last quarter of the century. We will not consider links with an abstract, metaphysical “East”. It would constitute too broad a view and, in our opinion, an erroneous one. The scope will be limited to the cultural connections between medieval Muscovy and the lands of Islam, which is in itself a broad enough topic. An attempt will be made to understand what exactly Moscow gained from this relationship, where, how, and in what form the exchange of ideas and images occurred, in what ways they were assimilated, how widely they were accepted, and how deeply they became rooted. Emphasis will be on the archaeology of medieval Russia and the Muscovite principality, architecture and ornament, and, to a lesser degree, the pertinent written sources.

**TRADE WITH ISLAMIC LANDS BEFORE THE GOLDEN HORDE**

Moscow was never far removed from the lands of Islam. Herodotus once compared the Greek cities of the Pontus Euxinus with frogs sitting on the edge of a huge puddle. Similarly we might compare the Volga river, the main artery of Muscovite Russia, with a necklace, on whose thread various states—the Russian Orthodox principalities, Turkish Jewish Khazaria, Islamic Bulgaria, the Golden Horde, and the khanate of Kazan—were strung like beads, beginning in the first millennium A.D. The Volga provided Moscow with a secure and reliable connection to the east. Some trade routes sprang from its lower course, running south through the Caspian Sea, or along its western shore, by land through Derbent, into Transcaucasia and Persia. Other routes went west toward the Black Sea, to the Near East and to the Mediterranean, and on to Palestine, Syria, Egypt, and the Magrib. Finally, there were eastern routes that led through the steppes and deserts into Central Asia and China. Northeastern Russia occupied an important place on the medieval map of international trade and politics. It provided a market for crafts from the East, as well as spices, fruit, and other products, and in return it supplied furs, whalebone, wax, leathercrafts, black
metal and the like, as well as slaves. In addition, its territory served as a transit area between northern Europe and East Asia.

This strategic trade and geographic position soon acquainted the inhabitants of the Russian northeast with the culture of Islam. In that "Mesopotamia" between the Upper Volga and the Oka where the land of Muscovy was situated, Islam was already known even before the area’s total occupation by Slavs in the ninth century. At that time the middle course of the Moscow river served as the transit in the complex system of caravan and river routes which connected the countries of Islam with Russia and the European north. From these countries came a steady flow of silver coins, beautifully crafted plates, and jewelry. These items give the findings in the Volga area dating from the ninth and tenth centuries a peculiarly eastern character.

These years are often called the "Arab period" in Eastern European trade. It was then that Arab traders first discovered the Volga route to eastern and northern Europe. The flow of Kufic dirhems which began in the eighth century was always closely connected with the mints of the Baghdad caliphate. In Russia, the time difference between the dates of minting and the burial of treasure is often negligible—within fifteen years of each other. Under the Abbasids (first third of the ninth century), coins of the African towns of the caliphate predominated. Beginning in the 830's money from Middle Eastern mints prevailed. In the tenth century, under the Samanids, coins from Khurasan and Transoxiana circulated. There was a sufficient supply of coins and of silver objects to allow them to be reexported further north to Scandinavia and the northern Urals. But reexport was not the purpose of the supply; silver mines were much more plentiful in Russia than in Scandinavia. Apparently, the influx of coins with Arabic writing ensured their circulation in the Eastern Slavic lands.

The situation is more intriguing in the Upper Oka area, including the territory of Muscovy and its surroundings. Here one finds hoards, in which the dirhems are combined with Slavic and Khazar ornaments. Most of them were hidden toward the end of the ninth or in the tenth century. The pattern of treasure hoarding corresponds well to the chronology of diplomatic and military relations between the Caliphate, Khazaria, and medieval Russia.

A glass weight was recently found in Moscow, which was produced either in Syria or Egypt in the ninth or tenth century. Such weights were apparently circulated along with precious metals, suggesting that some of the treasures were of a significant size. They were concealed in settlements whose heyday coincided with the period of intensive trading activity with the East along the Volga. Their population, possibly multiethnic and dependent upon Khazaria, serviced the traffic along rivers and portages, and participated in the exchange. Most of the settlements were later abandoned, and by the end of the tenth century, the flow of coin from the East had dried up as well.

This more or less marked the end of the prehistory of the Upper Volga–Arab relations, but the elements of material culture and crafts that were inherited were further developed by the Slavs who settled the Volga-Oka region in the tenth and beginning of the eleventh century. Some types of female ornament used among the Eastern Slavs are a reliable index of their affiliation with certain tribes. The most important among them were pendant rings, a type of head pendant, and earrings. These tribal, or rather dialectal, traditions were formed in the eleventh century, and maintained their significance during the twelfth and thirteenth, but they were based on old prototypes. Until the 1940’s all silver and gold ornaments from the ninth–tenth centuries were unconditionally considered to have come from trade with the Middle East, but they were later proved to be of local Slavic manufacture, though this does not deny the fact that they were inspired by Middle Eastern prototypes.

Simple comparison turns up the same objects in Iranian and Arab lands, which are the source of the pendant rings with three delicate, openwork beads, commonly found in all the Eastern Slavic lands in the twelfth and thirteenth centuries. Rings with seven rays and crescent pendants, so beloved by fashionable Slavic women, are also the legacy of the ancient Near East, transmitted to the Slavs through the mediation of medieval Byzantium and Islamic lands. They descend from the ancient crescents of the first and second millennia B.C.

Middle Eastern influences in the ornamentation of the Vyatichi tribes are also apparent in combinations of stone and glass beads. Their favorite method was to mix cornelian (usually of elongated, bipyramidal, or cylindrical shapes) with rock crystal (usually round). Neither cornelian nor crystal (nor the less common amethyst and lapis lazuli) were local stones. They were mined in western Asia, and processed in the cities of India and the Middle East. They
consequently reached Russia, whether as finished products or as raw material, through the Caucasus mountains and the Kypchak steppes. Thus, an Islamic legacy remained throughout all the Eastern Slavic lands during the years of state formation and religious conversion. But it is most apparent in the basin of the Oka and the Upper Volga rivers, the region which will comprise the future Great Russia. This comes as no surprise: it was in the northern Caucasus and the Volga region that Baghdad was politically very active; Khazaria was obliged to accept Islam; and the Volga Bulgars, the northern Islamic principality, became a Slavic neighbor. In this light, the argument of Muslim missionaries that they had the right to convert the East Slavic populations to one of Abraham’s religions appears logical and understandable. It is in fact possible to imagine the Volga-Oka area between the ninth and early eleventh centuries as a remote part of the Islamic cultural universe rather than as an outpost of Christianity.

From the beginning of the tenth century on, the possibility of a deep cultural influence from the Islamic Middle East on Russian lands was curtailed by the spread of Christianity. The destruction of the Samanid state by the Ghaznavids, the havoc wrought upon the Khazar Kaganate by Sviatoslav, and the general crisis of silver minting in the Arab Middle East in the last third of the tenth century transformed the overall picture of political and trade relations between the regions. Until the middle of the thirteenth century, medieval Russia’s perception of “eastern values” resembled the processes operating in the contact areas of western Europe—that is, alternating war and trade. Consequently, archaeology shows the remnants of military technology as well as the exchange of prestigious and valuable objects.

The Christian principalities of medieval Russia, however, had little reason and few opportunities to fight the Islamic lands with which they had no common border. They were cut off from each other by the steppe of the heathen nomads, through whom military innovations—the saber, for instance, which was used, along with the sword, in tenth-century Russia—were often exchanged. Once more, the direct exchanges the Volga and Oka regions or Vladimir-Suzdal Russia had with Volga Bulgaria in both merchandise and incessant military incursions until the middle of the thirteenth century were the only exception.

At that time, the lower course of the two main arteries of Russia, the Dnieper and the Volga, both of which flowed south, lacked stable governments capable of control and were consequently unsafe. In their place new possibilities were found for more distant imports. The Latin kingdoms had been created in the Middle East; Venice began to control trade in the Black Sea through Trebizond, Sinope, and the Crimean settlements. In a number of cases merchandise traveled further inland via the Lower Don and by portage to the Volga. Beginning in the second half of the twelfth century, exchanges with the settlements of the shah of Khwarazm and others in Central Asia and Iran were arranged through the territory of Volga Bulgaria, and some Arab traders actually ventured into eastern Europe. Archaeology shows a stable influx of exotic raw materials and finished products. For instance, shells were brought from the shores of the Arabian Sea; the Caucasus supplied wood from which combs, beloved by both Russians and northern Europeans, were crafted.

Glass and textiles, however, are the two categories of imports which are always under consideration by archaeology and which played a formative role in the area of domestic culture as well as in applied (though not only applied) arts and crafts.

Glass. Just as silver pendent rings are an indication of the presence of Slavic tribes in the eleventh and twelfth centuries, so colored glass bracelets indicate, according to archaeologists, a pre-Mongol Russian population. Hundreds of fragments have been found in Moscow as well as in other cities, indicating that they became popular in the middle of the twelfth century, since the largest number appear in early-thirteenth-century layers. It seemed that for a while the majority were manufactured in the third quarter of the eleventh century in Kiev, first by Greek, then by Russian masters, but these conclusions have recently been questioned on the basis of a large number of new spectrographic tests made on medieval Russian glass. The inventor of the tests, O. M. Oleinikov, doubts that the bracelets were manufactured on any considerable scale in Russia proper, and suggests that Mediterranean imports (from Byzantium, Venice, Syria, Egypt) were an underestimated source in previous calculations. Until some “real” glass foundries, or at least glass workshops which specialized in processing raw materials, are found in Russia, the assumption of an indigenous production of bracelets will invoke under-
standable suspicion. Clearly, the fashion for glass rings and bracelets, which for several centuries persisted throughout the entire Middle Eastern, Mediterranean, and western European regions, cannot in any special way be singled out as an indication of the connection between tenth-century Russia and the production of Islamic arts and crafts. But this fashion does clearly indicate Russia's affiliation with these cultures. If the manufacture of a considerable number of bracelets is ever demonstrated to have taken place in traditional centers of the southern and eastern Mediterranean, Russia might then be considered as one of the closest trading partners of the Middle Eastern glass manufacturers and merchants.

In any case, archaeology confirms the fact that glass vessels were imported. There are many examples of rich collections of glass from Rakka and Aleppo in the twelfth and thirteenth centuries such as the one assembled during the excavations of medieval Novogrudok. They are also in evidence from thirteenth-century Moscow. The prevalence of beads made of gold and silver glass from Syria and/or Egypt is also noteworthy.17

Textiles. The most salient and absolutely incontrovertible indicators for the appearance of Islamic works between the eleventh and thirteenth century are textile finds. Among the four hundred samples studied, no less than half are woven from yarn or, in other words, manufactured in a non-Byzantine tradition. Some of them are related to the eleventh–thirteenth century samples from Central Asia; another group belongs to the tradition of Seljuq Iran.18

Middle Eastern textiles are found, for the most part, in the Volga-Oka area. This is understandable, for they could easily reach this region through Bulgaria, via the Volga (colonies of Central Asian and Iranian traders are known to have existed in the Bulgarian town of Saksine). From the second half of the twelfth century, a concentration of finds of silk textiles embroidered in gold thread by Spanish workshops becomes noticeable in the Vladimir-Suzdal lands. A number of finds have also been made on the territory of the future Muscovite principality.19 Judging by the accumulation of textiles, trade was carried on, not through Kiev via the Dnieper, but through Kaffa, the Lower Don, portage through Astrakhan, and then further upstream via the Volga, or by caravan.20 Undoubtedly, silk textiles came from Byzantium as well; but judging by the finds, their amount was not overwhelming compared with the Central Asian, Iranian, or Spanish imports.21 These facts indicate that during the pre-Mongol period (end of twelfth–beginning of the thirteenth century) the economic rise of Volga-Oka Russia was predicated to a large degree on active trade relations with the Muslim East.22

In the time between the trade's "Arab period" (ninth–tenth centuries) and the heyday of Vladimir-Suzdal Russia (mid-twelfth–beginning of the thirteenth century), the town of Moscow made its appearance on the map (according to archaeological sources, at the end of the eleventh or beginning of the twelfth century). By the mid-twelfth century it had actually succeeded in becoming one of the typical princely strongholds in the process of colonization and feudalism. These settlements were centers for collecting, hoarding, and processing tribute; they also served as trading and duty posts, warehouses, and fortresses. Moscow's first—and according to archaeological data, relatively vigorous—boom falls exactly at the end of the twelfth and beginning of the thirteenth century. Recently found thirteenth-century treasures confirm the syncretic character of Moscow's elite culture. These treasures were discovered on the outskirts of the Kremlin and were most probably characteristic of boyar and trader circles. They consist of crafts by Russian jewelers, as well as Scandinavian-looking objects. Among them, however, were found a little spoon crafted from an exotic sea shell and a beautiful Oriental ring inscribed in Arabic.23

THE ERA OF THE GOLDEN HORDE

The Volga-Oka territories were, then, closely connected with the technical and artistic culture of Islam from the ninth through to the beginning of the thirteenth century. To a large extent, their economy was supported by the Eastern trade. What happened to these relations after (and as a result of) the Mongol-Turkish invasions of the end of the 1230's? We know the political results: the northeastern territories were incorporated into the Golden Horde as vassal states. The future Great Russia became part of the Muslim world, albeit a relatively remote one. What did it gain? The favorite answer of Russian historians is "innumerable calamities."24 It is the task of archaeology to determine what these calamities were.

That the Mongol yoke had pernicious consequences for medieval Russian civilization is impossible to deny. The development of a united political/cultural en-
tity with a traditional religious center in Kiev was abruptly halted. For centuries Russia was forceably cut off from the sphere of European political relations, culture, and trade. There are numerous and graphic examples of this disaster. Russia lost the skill of building churches, even modest ones. By the end of the fifteenth century, the Russians were incapable of erecting even one cathedral of the kind they had erected numerous times at the end of the twelfth. A number of complicated and expensive technologies (cloisonné enamel, for example) disappeared. Prospecting and processing certain types of raw materials (shale from Ovruch, from which a spinning-wheel part known as priazlitsa was produced) ceased. Many territories like the Kievian lands that had blossomed prior to the invasion became desolate.

The invasion, however, was not an unmitigated disaster everywhere. Moscow’s inclusion into the Golden Horde played a decisive role in its destiny. Indeed, it was in the 1250’s that its unique culture, which would eventually make Moscow a great principality, began to develop. Moscow was not alone; Tver and Nizhni Novgorod, among others, pushed their way into the forefront, leaving behind the capitals of formerly independent principalities like Vladimir, Yaroslavl, Rostov. The one salient and most important factor contributing to the growth of these cities, all conveniently situated on waterways, was their mediating role in politics and trade. Their success was determined to some extent by their geographic, political, and sometimes kinship ties to the Horde (some Russian princes married Horde princesses).

Moscow’s archaeological data present a picture of steady growth and vitality, expressed in the progressive development of material culture and evident throughout the entire thirteenth century. Even the city’s destruction by the armies of Batu Khan in 1337 did not interrupt this process. Of course, excavations do reveal real traces of the invasion: hoards of unclaimed treasure, layers of conflagration debris, and destroyed dwellings. However, there is no evidence of a noticeable interruption in the process of settling the urban territory, i.e., no reduction or abatement in the accumulation of finds. Moscow in the thirteenth century was characterized, not by the extinction or impoverishment of its culture, but rather by qualitative changes in its appearance. Some of these cultural changes, observable by the fourteenth century, began before the invasion, and so are particularly interesting; they are best illustrated by the manufacture of ceramics.²⁵

Ceramics. When Eastern influence on ceramic manufacture is brought up, the discussion always seems to hinge on showcase Chinese pieces. Everyday local ceramics are rarely if ever examined. Yet a parallel study of the two is particularly instructive. If we turn to Moscow ceramics of the Horde period (thirteenth–fifteenth centuries),²⁶ we find that the basic ceramic shape of the preceding era (eleventh–thirteenth centuries) was a pot of relatively uniform shape with little change in detail and ornament. The finished pots had thick walls, since their body contained plenty of strengthening components like sand, crushed ceramics, and mica. The body had a brownish or gray tint, its surface remained quite rough. For serving at table, implements made of other materials were used—wood or, in wealthy households, metal and glass. In the city, modeling and baking were done by craftsmen who used a potter’s wheel and a kiln. Pottery emerged somewhat improved in appearance, but still looking fairly archaic.

During the period from the end of the thirteenth to the end of the fifteenth century, the technology (paste preparation, modeling, firing) rapidly improved, with the shapes of vessels becoming more complicated and varied. The main technological pottery type of this period was a red-clay vessel produced by uniform firing throughout the entire depth of the crock. Its walls were very thin, but strong, and produce a clear ringing sound. Many pots appeared burnished, from the shine of their polished surfaces. Others were decorated with white clay slip and drawing. In this way inexpensive red-and-white tableware emerged. Quantitatively, the pot still predominated, but its profile began to vary. At the same time, a whole group of previously unknown or rare shapes made their appearance. Most noticeable was the prevalence of vessels with handles and spouts: pitchers, large mugs, kumgans, jugs. Some had lids; others were open types—flat tureens, plates and bowls, and saucerred goblets.

Ornamentation changed as well. The use of traditional undulating and linear patterns sharply declined, gradually replaced, on polished vessels, with straight lines and zigzags, as well as tooth stamp marks and fork pricks. Superficial comparison shows similarity in technology, shape, and ornament, with the ceramics of the Middle Volga region (Bulgaria) of the twelfth and thirteenth centuries and the Lower Volga region.
inhabited by the Horde in the fourteenth and fifteenth centuries. It has recently been established that at the end of the fourteenth and first half of the fifteenth century, tableware was being imported from the workshops of Moorish Spain, possibly through the mediation of Genoese traders. So far it has been discovered in.

Somewhat later, the showcase tableware in Moscow began to be covered with a glaze of a lead silica compound, which was known in Russia in the twelfth and thirteenth centuries. During firing it took on shades of green, brown, or red. Having mastered the technology of glazed ceramics production, in the fourteenth century Moscow craftsmen began to turn out a new kind of tableware: conical bowls without handles (sometimes with an attached saucer, with bolsters, or a grooved surface). Some of them had the shape of a Central Asian drinking bowl with conical sides and a flat bottom. Thus developed a uniquely Muscovite type of ceramics, whose two prototypes were carved wooden goblets and Middle Eastern glazed drinking bowls.

All in all, the urbane glazed ceramics of Muscovy in the fourteenth and fifteenth centuries can certainly be called Oriental or at least orientalizing. For kitchen and serving utensils, red bodies prevailed. The simplest tableware was of red or red-and-white design; in wealthy households it was supplemented with multicolored, locally produced glazed ceramics, and, at times, with exotic imports. The ceramics of both neighboring and remote Islamic lands—Volga Bulgaria, the Lower Volga, Central Asia—were rather similar in color tones and did not much differ in shape. The ceramics of the principalities located further west, however, show certain distinctions, which is not surprising since Islamic Bulgaria, with the Horde directly behind it, and Tatar Crimea, were neighbors of Russia. The trade that Russia conducted with them was not only in goods, but also in technologies. Results were revealed in inexpensive items for mass consumption. Cultural exchange with more remote lands, Byzantium and western Europe, assumed a different aspect.

Moscow’s ceramic output in the fourteenth and fifteenth centuries is one of the earliest and brightest expressions of its material culture. Middle Eastern influences derived primarily from attracting skilled practitioners (captured craftsmen, willing renegades, hired specialists, Russian potters back from their travels) of the technology to the manufacturing process. Examples of beautiful ceramics, which found their way through the boundaries of the Volga-Oka principalities, inspired imitation.

In the eleventh and twelfth centuries, Russia had already begun to import expensive Middle Eastern tableware, though in the majority of towns imports were not particularly numerous. As a result, the increase in ceramic imports which occurred after the inclusion of northeastern Russia into the system of the Golden Horde is particularly noticeable. Painted Middle Eastern bowls and tureens are often found in the twelfth-to-fifteenth-century layers in Moscow, and fragments are everywhere—in the Kremlin, in the city layers, and in suburban settlements. Red clay or polished imported ceramics are not as easily detectable, since they do not differ very much from local examples.

We can determine with a fair degree of accuracy how much of this tableware supply came from which of the various centers of pottery making. Expensive ceramics reached Moscow via the same Volga route from the Horde towns of the Transcaspian region and the Crimea. For the most part, that is where they were produced. Yet considerably more distant lands can also be found among the importer countries, including Iran, the countries of the Central Asia (primarily Khwarazm), and even China.

A map of the finds presents approximately the same picture as was characteristic of Middle Eastern glass and textiles. For instance, Iranian lusterware of the twelfth and thirteenth centuries was found in Novogrudok (25 fragments, all from the twelfth century), and other western Russian towns (Lukoml’, Smolensk). Relatively numerous finds in Novgorod (20 fragments) showed the availability of Egyptian, Mesopotamian (ninth-twelfth centuries) and Syrian (twelfth-thirteenth centuries) rather than Iranian vessels. So far, no Iranian lusterware has been discovered in southern Russia.

Iranian lusterware is most widely represented in the regions of the Upper Volga and the Oka (Rostov, Yaroslavl, Suzdal, Tver, Moscow, Old Ryazan). In Tver, Moscow’s medieval rival, 15 fragments of various shapes and painted designs analogous to the ones from the end of the twelfth through the fourteenth centuries have been recorded. Finds from other towns are dated in approximately the same fashion (for instance, 21 fragments from Old Ryazan). In Moscow, Iranian lusterware is less common, but it is found in post-fourteenth-century layers as late as the seventeenth century.

It has recently been established that at the end of the fourteenth and first half of the fifteenth century, tableware was being imported from the workshops of Moorish Spain, possibly through the mediation of Genoese traders. So far it has been discovered in
Moscow only, where it is represented by three fragments of semispherical bowls with checkered or meandered underglazed cobalt design and with red/gold luster. One of the finds was discovered in a church foundation dating to the end of the fourteenth century. The ceramics of Moorish Spain were carried there by Genoese merchants who had colonies in Moncastro and Kaffa on the Black Sea, but they are also found in Tan, a Venetian colony at the mouth of the Don. From there to Moscow tableware could be further transported by merchants specializing in the Crimean trade, as well as by various embassies.

Imported lusterware, whether Spanish or Iranian, was the exception in Russia, rather than the rule. But in the fourteenth century the centers of expensive ceramics manufacture of the Islamic type moved closer to Moscow. Powerful settlements like Sarai Batu and especially Sarai Berke (corresponding to the medieval towns of Tzarevsk and Selitren) established glazed-tableware and ceramic-tile manufacture on almost an industrial scale. Fragments of these products—mainly semiaience on a white faience base—are fairly numerous in Moscow in levels dating from the end of the thirteenth to the beginning of the fifteenth century. Among them are bowls of the drinking-cup type, with the upper edge bent outward and containing slight underglazed relief and underglazed painted ornament, widely used from Egypt to Khwarazm and from the Arab Peninsula to the Golden Horde. From the point of view of ornament, the stylized lotus leaves which decorate their exterior constitute their most important distinction. The design goes back to the petals of the Chinese celadon bowls of the Sung and Yuan dynasties (tenth to fourteenth centuries), which served as prototypes for Egyptian and Iranian semispherical bowls of the twelfth to fourteenth century. Iranian ceramics of the “Sultanabad” type became models for the craftsmen of the Horde’s trans-Volga and Khwarazm regions. Other patterns deserving of notice are the “peacock eye,” the “wheel flower,” epigraphic and pseudoepigraphic designs (in Moscow, ceramics inscribed with the Arabic word for success are particularly common).

The second important group of tableware, without underglazed slip and painted directly on the body, has the same origin but differs in technological ornamentation (net, zigzags, imitation of inscriptions in naskh, fern leaves, flowers). The simplest types of glazed tableware (semi-faiences, majolica, and semi-majolica with continuous turquoise, blue, green, and colorless glazes) are not as common in Moscow as the painted ones. In frequency, their discoveries are close to findings of expensive minai faiences with overglazed painting and gilding. Just as rare are finds of tureens executed in the sgraffito technique, common in the eastern Crimea and the Black Sea area in the fourteenth century.

It is possible to conjecture that the ceramics of the Lower Volga workshops of the fourteenth century, which were manufactured in industrial quantities and were rather sophisticated in their artistic attainment, impeded the flow into Moscow of tableware from Central Asia (Khwarazm), the Crimea, and the Caucasus. More expensive items, as well as objects of remote import, would in all likelihood have been brought there as favors, gifts, private property of embassies and merchants, or war booty. It is possible that trade in such items, as well as in less expensive, simpler tableware, did not justify the cost of the elaborate shipping that would have been required by the fragility of the objects.

Among the items brought from afar in the fourteenth and fifteenth centuries, the most common are objects from Iran. Tableware fragments, rare in Europe, are also found. Among them are semi-majolicas with black painted ornament from Otrara on the Syr Daria, imitations of rare types of Chinese cut porcelain with red underglazed painted ornament, executed in Sarai Berke or in the northern Caucasus, Chinese celadons, spherical bomb-shaped vessels for transporting quicksilver, medicine, and perfumes. A few items of this type are technologically close to the workshops of Transcaucasia. The destruction by Tamerlane of the Horde’s settlements at the end of the fourteenth century and the subsequent seizure of Constantinople by the Ottomans in the mid-fifteenth shifted the geography of trade relations, including the flow of merchandise into Moscow, once again. In the fifteenth century the amount of Horde ceramics from the trans-Volga sharply declined, while imports of Timurid tableware and of other items from Ottoman Turkey rose. Particularly numerous were Turkish ceramics brought from Iznik in the sixteenth century. All three of its ceramic groups were well known in Moscow. Beginning in the sixteenth century glazed ceramics were no longer prohibitively expensive, and they began to occupy second place among imported merchandise. It certainly did not warrant any elaborate description in the records of ambassadourial gifts to the Russian
sovereigns; only their quantity is mentioned. From the end of the fifteenth century, real Chinese porcelain began to make its appearance in Moscow, most likely brought via the Great Silk Road, although secondary import from Europe cannot be excluded.\textsuperscript{38}

\textit{Jewelry.} This survey of ceramic import has taken us far beyond the limits of the period under consideration, but it will be helpful in tying together the various other Islamic objects found in archaeology. One of these is jewelry. It would certainly have been useful to compare the jewelry of fourteenth- and fifteenth-century peasants and town dwellers to pieces found in burial mounds from the eleventh to the beginning of the thirteenth century, for such a comparison might have helped trace the progressive weakening of features inherited from Arab prototypes or, on the contrary, irrefutably demonstrated the arrival of a new wave of Eastern influences. Unfortunately it cannot be made because is impossible. The custom of providing the deceased with domestic implements and jewelry decorations had receded even in Russia’s most remote corners by the middle of the thirteenth century, leaving archaeologists with little in the way of finds.

We do, however, have some extraordinary, if scant, material for the years between the thirteenth and the sixteenth century. Most of these items were preserved in monastic and church treasuries; some were found among princely treasures; others are rare archaeological finds. The objects are usually sacred, with a confessional accent, which largely excludes penetration of alien elements, whether religious or cultural.\textsuperscript{39} This makes exceptions deserving of particular notice. For example, the chalice of the Troitse-Sergieva Lavra (fig. 1) is a Chinese bowl in crystal framed in cast metal with an image of Christ. Clearly, the valuable and rare component materials, along with the general exotic appearance of the bowl, played an important role in its use.\textsuperscript{40}

Cases of copying Eastern designs by Russian masters or of attracting Eastern craftsmen to work in mixed teams are of greater interest. Among the perfectly Christian decorations on the robe of Metropolitan Alexei (ca. 1364; fig. 2) are woven 10 quatrefoil stripes with images of birds. They occupy an important place on the border and differ from other similar items not only in their uncommon subject and composition but technically as well. Stripes on a sumptuous robe were usually smooth, with enamel or black silver surfaces; only a few of them were stamped. The technology used in the making of the medallions with birds was unknown in Russia: they are stamped out of a heavily gilded thick silver sheet, then minted over, and have the appearance of being cast.

The birds are depicted with open wings, have long necks and long thin beaks turned to one side. Wings and bodies are minted “feather like.” There are ornamental plants between the birds. The closest existing analogy is the Chinese-like mirror of Bulgarian craftsmanship from the pre-Horde period.\textsuperscript{41} Metropolitan Alexei did visit the Horde at least once (1357), and, according to legend, was respected at the court of Taidulla, Khan Zhanibek’s wife. The robe striped with birds could have been among her presents to the prelate.\textsuperscript{42}

The famous hat of Monomachos, the future crown of the grand dukes of Muscovy, is the best example of the inclusion of fourteenth-century Russian court
jewelry art into the system of the “Islamic style” (fig. 3). Debate over this hat has been raging for many decades, but its Eastern origin is becoming increasingly accepted. Still, passions continue to boil as regards the source of the artistic tradition in which the hat was made. The polemic has activated work in the history of fourteenth- and fifteenth-century Russian and Eastern filigree. The influence of Middle Eastern technology of a “spiral style” on the development of the Moscow jewelry is now obvious. This influence is demonstrated by such renowned pieces from the first quarter of the fifteenth century as Gospel covers and icon frames. The design and technology of their sumptuous filigree are definitely “orientalizing,” while the sparsely used details (“Solomon’s star,” “woven cross,” “lotus flower”) appear to have walked straight off the jewelry of the Islamic Mediterranean and Egypt.

In the course of the fifteenth and sixteenth centuries, Moscow filigree established itself as a perfectly self-sustained and solid style. Yet the traces of its earlier connections to the eastern style of spirally curled filigree will never fully disappear. Eastern jewelers were employed by the Russian princes as far back as the fourteenth century. They worked in Russia proper, in Moscow, as well as in the Volga region, in the Crimea, and even in more remote lands. Russian merchants, clerics, princely ambassadors, and the princes themselves either lived in those lands or visited them frequently. Commission, purchase, or military loot were not the only ways by which the Russian nobility acquired eastern valuables; there were, of course, regular exchanges, presents from the Horde’s khans and nobility, and a number of Russian boyars and princes had family ties to the Horde. A golden brooch found in the town of Tushkov (the area of Mozhaisk, to the west of Moscow) has a design similar to the “lotus flowers” on the hat of Monomachos, and to a textile from Bolgar on the Volga. The burst of orientalizing particularly noticeable at the end of the fourteenth century can be explained by Timur’s destruction of many Crimean and Lower Volga towns in 1395. Since Russia happily escaped the invasion, many of the Horde’s craftsmen sought shelter at the court of the Moscow prince and his boyars.

Panaghias. At the end of the fourteenth century, among the relatively numerous innovations in the Russian Orthodox church’s paraphernalia was the introduction of jewelry pieces of metal, often silver, called panaghias (fig. 4), fairly large (usually 10-15 cm in diameter), round medallions with a folded opening. On the exterior they are decorated with an Assumption, or, more rarely, a Crucifixion or images of saints. The other side is often covered with tracery, which can serve as a frame ornament or provide a background for some other design.

The dates of the earliest panaghias are obscure. A legend links two of them with the names of church figures who lived around 1400, like Nikon, the second abbot of the Troitse-Sergieva monastery, and Arseny, the bishop of Tver. Other panaghias are dated either by comparison with these two or by the epigraphy of their signs. It has often been noted that the ornament on both panaghias is clearly Middle Eastern. The right-side perimeter of Nikon’s panagia is embellished with a plated band of flowers opening on crisscrossing stems tied into a knot by a ribbon. In Islamic ornament this is an ancient and extremely common pattern of perpetual repetition, the constant...
Fig. 3. The "hat of Monomakh." Beginning of the 13th century. Moscow, Kremlin Museums.
interchange of death and birth. The back side's tracery is even more interesting: two symmetrical spiral curls with rounded triangular leaves and "eyes" on sprouts are in the center. Objects from Iran or executed under Persian influence provide very close equivalents to these designs. A panaghia from the Moscow Kremlin's armory (beginning of the fifteenth century?) served as a prototype for both these patterns, although the arabesque surrounding its reverse side has a much more difficult and complicated design, and the ornament of the central circle is cast in relief and has only one grip.

The pattern of these three panaghias has a long chain of parallels until around the second half of the fifteenth century. The circle with spirals is repeated almost exactly on the reverse of a panaghia from Novgorod's Antoniev monastery and on the reverse of two panaghias from the Kiril monastery. Related motifs, although somewhat simplified, decorated special triangular projections and rectangular plates on the edges of many panaghias (to which plaited chains for wearing on the chest, as well as locks, were attached). These patterns are also found in the metal parts of bindings for religious books. From the end of the fifteenth century, panaghias of similar design are also known in Moldavia.

The panaghia of Arseny, the bishop of Tver (end of the fourteenth century), offers another, more developed version of the Middle Eastern ornament, the interlaced spiral petals, in addition to ribbons of flowers growing through each other. A similar panaghia from the collection of the Novodievichy monastery is decorated using an unusual technique: cast openwork minting which entirely covers both its sides. Superimposed images of saints and groups of figures from the Assumption motif are attached to this surface.

All these patterns were far from traditional in Russian art before the fourteenth century. Like the panaghias themselves, they represented innovation.
The early examples did not always have Oriental ornamentation, but the interlacing of spiral vegetation will repeat itself and give a definite Oriental flavor to sixteenth- and seventeenth-century ornamental art.53

Wooden doors. The orientalizing process is also obvious in church woodwork. The few remaining examples of iconostases are designed in a way that can be compared with ornamentation on jewelry and architectural interlacing found in Islamic countries. There are differences in technology, materials, size, and purpose, but pattern similarities are numerous. The rounded tops of the doors are framed with ribbons, and spirals with triangular petals fit inside them. Their interlacing is considerably simplified, and numerous curly circles are added.54 Similar patterns are found both in Iran and Seljuq Asia Minor, and, later, in Ottoman Turkey. The fret of fourteenth- and fifteenth-century Crimean stone constructions has been offered as still another comparison.55 However, the striking similarity of these patterns with the carving on Koran pedestals, minbars, and other wooden paraphernalia of the mosques in Islamic lands of the thirteenth-century Black Sea region, seems more convincing. There one finds correspondence not only in the type of architectural construction, but also in technology, and, to some extent, in symbolic function.56

Unfortunately Russia has no early examples of woodcarving. Some of the iconostases date from between the end of the fifteenth and the second half of the sixteenth century; some have no dating at all (figs. 5-6), and it is possible that they might go back earlier, perhaps to the first half or the middle of the fifteenth century. Extant examples are exquisite and carefully designed, so it can scarcely be assumed that they had no predecessors. One must also consider that the tradition of Seljuq-style carving was long preserved in Asia Minor, Transcaucasia, and European Turkey and was certainly quite alive until the fifteenth century. Consequently the tsar’s doors can legitimately be compared with other articles from the same period.

It is important to remember that, like panaghias, the central doors carved in high relief did not represent a traditional form in the Orthodox church interior. They evolved between the fourteenth and sixteenth centuries in a development parallel to the formation of the high Russian iconostasis. Therefore, their inspiration could not have come from Byzantium or the Christian East. In the atmosphere of relative artistic freedom, however, borrowing from the well-evolved ornamental carving of their Muslim neighbors was both possible and plausible.

Master craftsmen familiar with methods and patterns of wood carving common in Islamic lands were involved in the creation of the first examples of the tsar’s doors with an eastern design. They could have been baptized craftsmen from the Horde, or Russian masters who visited the trans-Volga area, the Crimea, Asia Minor, and Transcaucasia. This process of construction took place between the end of the fourteenth and the first third of the fifteenth century. The influence of the forms that evolved was felt up to the second half of the sixteenth century, and their general impact was in evidence even later.

Fig. 5. Carved tsar’s doors from the iconostasis of the Pafnutievo-Borovskii Monastery (south of Moscow). (Photo: T. Levina)
Stone building. Did Middle Eastern influences turn up in architectural form? A serious historian of Russian architecture will most probably answer in the negative, and, on the whole, would be right. The hypothesis that builders from Volga Bulgaria participated in the construction of Andrei Bogoliubov’s churches (mid-twelfth century) has long been rejected. Also unsupported is the proposition that the architecture of the church of Pokrov in Ruy (mid-sixteenth century) reflects the forms of the central minaret in recently conquered Kazan. Yet the general impression of the building’s eastern flavor remains. Meanwhile, let us remember that, beginning in the last third of the fifteenth century, it was not so much Islamic, but European Renaissance influences, that were paramount in Muscovite architecture.

If one turns to the separate elements of building technology and ornamentation, however, the answer will be different. Take the simple case of brick manufacture: the Turkic word керпъ (brick) came from the east, possibly via the Tatars; it was used in Moscow beginning in the late Horde period, and керпъ remains the Russian word for brick to this day. Until then the word плнтъ, плинфъ, or плинфа was common to all medieval Russian lands. It derived from the Greek πλινθός and was brought to Russia by Byzantine craftsmen at the end of the tenth century (in modern Russian, however, плинтус means baseboard).57

The Moscow principality did not begin building stone churches until quite late—in the 1320’s. When it did, it went back to the pre-Mongol architectural traditions of the northeast, where white limestone was used. The only builders who worked in brick came from the south, from the Dnieper principalities where brick production was established at the end of the tenth century and never interrupted. At the end of the thirteenth century brick construction was still used in Rostov and other towns of the northeast. Moscow, however, did not have its own brick manufacturies until possibly the middle of the fifteenth century.58

It was precisely at this point, at the end of a major feudal war which had lasted a quarter of a century, that stone construction was renewed in Moscow and the Greek-cross churches crowned with a single cupola and decorated with comparable frets were built. But then the architects used a mixed technology, brick and limestone together. The appearance of brick coincided in Moscow with the new name for it.

The dimensions of this brick are particularly interesting. A typical flat and square Byzantine brick was used in Russia in the tenth and eleventh centuries. In the eleventh and twelfth, it gradually thickened and became elongated, until it was replaced, in the first half of the thirteenth century, with a Gothic “bar” brick which was brought to Russia by Cistercian builders. The bar brick, square in cross section, elongated, and rather heavy, continued to be used in those parts of Russia where stone construction was maintained in the fourteenth to fifteenth centuries.

By the mid-fifteenth century, Moscow was using a completely different type of brick. They were very thin (4–4.5 cm) small plaques approximately 25 cms long. Similar bricks continued in use during the late Middle Ages along the Byzantine periphery, in the trans-Volga area, and in the Crimea. That the appearance of the new word керпъ closely linked to the Horde, the simultaneous establishment in Muscovy
of brick manufacture, and the spread of the brick’s archaic shape and size during the “pre-Italian” period in Moscow construction represent a triple chronological coincidence is unlikely. In all likelihood brick production in fifteenth-century Moscow developed with the participation of craftsmen who had training from Islamic lands, just as in the domestic ceramics industry. If that indeed was the case, then the spread of some types of vaulted ceilings—for example, the groin vault which was particularly popular with Iranian builders in Moscow—begins to make sense.⁵⁹

Carved friezes. Islamic influence on the decoration of facades is more obvious. A frieze carved in stone in the middle of the façade, on the level of the apse cornice, constituted the main ornamentation on Moscovite buildings at the end of the fourteenth and first third of the fifteenth centuries.⁶⁰ Carved-stone ornaments were then divided into two clear categories. The first category was the arabesque, widely used throughout the Islamic East and its areas of contact; it was present on practically all Moscow buildings decorated with either carved or ceramic friezes. The second category were the intricate woven ornaments of obscure provenance, vaguely reminiscent of Seljuq examples, Seljuq plaits, and pseudo-Kufic writing. These, however, are rare; they are found only in the decoration on two churches, the church of the Assumption and the Rozhdestvensky Cathedral of the Savvin Storozhevsky monastery (figs. 7-9), in the town of Zvenigorod. Intricate arabesques, absent in other constructions, are also found there.

The arabesque in its simplest form (two lines of repetitively undulating sprouts woven through each other) is much more common. It is this type that inspired a long line of imitations extending to mid-sixteenth-century tiles. Excavations have found this arabesque dating back to the middle of the fourteenth
Fig. 8. Carved frieze with plaited ornament. (Photo: G. Vagner)

Fig. 9. Detail of fig. 8. Carved frieze with plaited ornament. (Photo: G. Vagner)
century (stones from the church of Spasna Boru), it had become fairly common by the end of that century (e.g., on stones from the Bogoyavlensky Cathedral). Fully preserved churches with this ornament also exist, including the Trinity Cathedral of the Troitse-Sergieva Lavra (1426), the architectural monument which proved to be so extraordinarily influential in Moscow architecture. A long line of imitations derived from it.

From the middle of the fifteenth century, stone carving was replaced with similar designs made with tiles. The frieze panels were glazed. The idea of decorating a church with glazed clay plates with stamped design was quite within the tradition of Islamic architecture. Even so, the painstaking search for the prototypes for Islamic architectural ornament must continue until the decoration of the two Zvenigorod churches is more precisely identified.

Islamizing ornamentation carved in stone on Moscow church façades shows much the same course of development as in jewelry design: penetration of Islamic influences from approximately the middle of the fourteenth century, an outburst of interest in Eastern decoration, and the obvious expansion of possibilities for its reproduction at the end of the century. There follows a period of adapting and simplifying these ornaments in terra cotta beginning in the mid-fifteenth century, their concomitant diffusion throughout Russia, and their merging with Western European ornament. Loyalty to Oriental decoration did not disappear, however: for example, the Pokrov Cathedral’s carvings in the town of Alexandrov Sloboda in the suburbs of Moscow, and the terra cotta in the palace of the last independent principality of Ugлич. The first directly copy the Trinity Cathedral carvings of 1426; the terra cotta probably show the influence of Moscow’s new subjects, the Tatars of the Kazan Khanate annexed in the middle of the sixteenth century.

Islamic influence on white-stone carving during the second half of the sixteenth century, predicated on the rapid Muscovite conquest of territory to the east and into the trans-Volga area and Siberia, is quite obvious. Islamic architectural constructions had been built in the capital of the independent principality of the Kasim Khanate which exhibited cartouches with carved Arabic inscriptions. Eastern textile designs turn up on white stone carving on seventeenth-century tombs in the Kremlin’s Archangel Cathedral as well as, more rarely, on the common tombs of seventeenth-century Moscow inhabitants who had connections with the Lower Volga region. The same process of copying textile design is noticeable in Russian tiles beginning in the sixteenth century.

This decoration differs greatly from the earlier period, with its familiarity with architectural ornament and attempt to develop, on Russian soil, a variant of the rich and complicated design characteristic of Islamic architecture. Then a completely developed ornamental style in Moscow used the sumptuous floral motifs of eastern textiles to broaden its own decorative possibilities, possibly even orientalizing it deliberately. There is an easy explanation for this phenomenon: relations with the East in sixteenth- and
seventeenth-century Russia differed dramatically from those at the end of the fifteenth century. The experiment of including northeastern Russia into the sphere of Islamic politics and culture had come to an end and had been a failure. From the middle of the sixteenth century, one by one, the Muslim states were absorbed by Muscovy, and their population became Russified and Christianized. The new era of the "Russian experiment" of creating an Orthodox empire had begun.

THE ERA OF THE RUSSIAN TSARDOM

The failure of eastern relations was not complete. Trade relations were not interrupted and continued to develop under the changed circumstances; appreciation of eastern goods persevered, and the tradition of exchanging presents did not disappear. The era of the Moscow tsardom, this time with Russia advancing toward the Islamic East, was something of a reconquista, a time of exploitation of Islamic resources, of enthusiasm for everything Oriental, a time which smoothly metamorphosed into eighteenth- and nineteenth-century European Orientalism.

Written sources for the sixteenth and seventeenth centuries are sufficiently numerous to establish patterns of exchange. The first agreement with Turkey regulating trade is dated 1496. Trade and diplomatic correspondence with the Crimean khan concerning commerce can be traced to the 1470's; customs regulations and other documents appear later.66

The quantitative appraisal of the eastern trade's economic influence remains open, together with the question of the participation of Russian traders in distant travels. But its extreme importance for Russia is clear. From the "Islamic belt" countries Russia received basic commodities, including livestock (horses and sheep), agriculture (spices, dried fruit, rice, sugar), crafts (textiles, leather goods), and luxury items (precious gems, pearls). Moscow's trade with the East has been much studied, but an archaeological survey cannot disregard the infinite variety of textiles represented by the collections of Moscovite garments from the sixteenth and seventeenth centuries, although they were, for the most part, the clothes of princes and their retinues, or church vestments. Yet the middle-class "encyclopedia of home management," the famous Domostroi of the middle of the sixteenth century, shows wonderfully the size and importance of eastern textiles in the life of the ordinary citizen.

For the making of outer- and underwear, the book recommends buying taffeta in bulk, and gold and silver thread in liters. Velvet, taffeta, gold satin flicker before one's eyes in accounts of wealthy family weddings. But in descriptions of weddings among the poor, "those unable to celebrate a wedding for reasons of need" are instructed in gift-giving (father-in-law gives his son-in-law a piece of satin, and mother-in-law gives her daughter-in-law a piece of "kamka" and taffeta). In church, the newlyweds' path was laid with taffeta, and zendeni and kindiaki, both terms of eastern origin whose exact identification is unclear. The same fabrics were used in homes for staircases, passages, and bedrooms.67

The reaction to the East's cultural influences in the sixteenth and seventeenth centuries was, however, no longer straightforward. From the end of the fifteenth century there existed two cultural trends in Russia, Eastern and Western, with the European Renaissance sharply weakening the Islamic trend. It became obvious in woodcarving and stone engraving, where, in the beginning of the sixteenth century, both Eastern and Western ornamental motifs came to exist side by side. It can also be seen in stone constructions and weaponry, particularly firearms. While both influences were evident, the Western influence was clearly pushing the Islamic one out.

Evidence for this can be found in Russian coinage (fig. 10). At one point at the end of the fourteenth century, the Horde's numismatic system served as its technological progenitor. The process of gradually replacing Arabic script and design, common to the Horde, with Russian princely insignia took place during the fifteenth century. However, at the end of the fifteenth century, the time of Moscow's formal deliverance from the Horde's dominion, Russian princes became dissatisfied with this Russified coin. Italian master craftsmen, including one Aristote Fioravanti, were called upon to redesign it. The result was a coin with an "Ornistotel" legend on its reverse side (fig. 11). Whatever interpretation can be given to this insignia, the fact that it is written in Latin letters, rather than Arabic or Cyrillic, speaks volumes for a decisive turn in cultural and political orientation.68

This change in orientation had much to do with external historical circumstances. It was at this time that the technological stagnation of the Islamic states, when compared to the quickly developing urban civilization of Europe, was becoming apparent. Since
To use the example of mass produced ceramics once again there is a sharp change: this time from the orientalizing early Muscovite white/red style with complementary accents of cobalt and lapis lazuli, to glazed tableware with black/white tonalities and polychromatic inserts. Technologically this change was predicated on learning new methods of firing and glazing. The reason was simple: the glossy solid surface of luster containers for wine, milk, and other drinks was similar to that of the pewter tableware then fashionable in Europe. New shapes, foreign to Eastern ceramics, also appeared at the end of the fifteenth century, primarily кубышки, the round bottles of the Middle Ages with stretched necks and turned-out collars, drinking glasses, balloon-like vessels for water, and other receptacles, whose analogues could later be found in still-life paintings in all European countries.

From this time on, Moscow clearly began to identify itself with the European world, with consequent changes in its material culture. The East gradually acquired the same aura it had for all Europeans: exotic, fabulously wealthy, but foreign.

Forms of cultural attitudes changed accordingly. Muscovite masters continued to adopt the crafts of Oriental armorers for the treasury. Some of them actually apprenticed in Turkey: such was the case of Nikita Davydov, the craftsman of the Kremlin Armory, who was sent to Constantinople for this purpose. The presence of Turkish masters in Moscow also cannot be excluded. The armory of the Muscovite princes was full of hybrid items of Russo-Islamic craftsmanship.

The most noticeable of these objects is the “Kazan...
Ivan Vasilievich (fig. 13) used as grand prince (1533-47), Astrakhan were annexed, it was returned to the homeland in 1552 (fig. 12). Later, after Kazan and Astrakhan were annexed, it was returned to the homeland. For the study of hybrid art, however, helmets present a more interesting example. The helmet Ivan Vasilievich (fig. 13) used as grand prince (1533–47) was of either Persian or Russo-Persian craftsmanship. It has a remarkable eastern floral ornament in gold incision, epigraphic or pseudoepigraphic ornamental belt, and an additional belt with gold Cyrillic script. Whoever made this object, whether a Russian, a Persian, or a Turkish craftsman, the helmet very clearly emphasizes the orientalization of showcase armor.

The Kremlin Armory has a wonderful collection of eastern ceremonial armor which was widely copied. We know that in the collections of the tsars' armor there were many such adapted items of eastern manufacture, where the craftsmen seemingly entered into competition with the original master, embellishing the original object with new elements. Nikita Davydov's augmentation of the wreath on Tsar Mikhail Fedorovich's helmet (the "epikhon hat") with a golden crown is an example. The helmet itself was produced in Iran and richly gilded, but the Russian client deemed the decoration insufficiently sumptuous.

Russo-Iranian swords present another interesting example of hybridization. They were originally manufactured in Isfahan, but later decorated with Cyrillic script. They were produced up to the end of the seventeenth century. Their Arabic script is often illiterate or simply pseudoepigraphic; like superfluous decoration, it seems that the writing, too, was executed by Russian masters. These swords no longer belonged among the tsars' treasures, but were the property of common retainers.

The work of metal craftsmen on hybrid objects became a preparatory step for the conquest of an Asian market that was partly within the Muscovite principality itself. In the sixteenth century the Russian lands supplied the East with items of metallurgy such as knives. A little later these modest beginnings yielded a rich harvest of interest to the archaeologist. When eastern lands, including the lands of Islam, fell under Russian influence, they were quickly saturated with hybrid items in the local taste, but manufactured in central Russia, mainly in the trans-Volga area. A wonderful example are the bronze mirrors with representations of centaurs and riders, found throughout the huge territories between the Upper Don and Magadan in eastern Siberia, and from Lake Faddey (in the Arctic) to Central Asia (sixteenth–nineteenth centuries). The vestiges of the spiral and floral motifs ornament the Russo-Asian openwork buckles of the seventeenth and eighteenth centuries. Textiles, too, changed course, and were now delivered from central Russia (the same Volga-Oka area) to remote Central Asia. From the point of view of archaeology, then, Islamic elements in Muscovite culture are neither scarce nor unnoticed. They occupy a concrete and relatively obvious position and can be weighted and reckoned in full.

In our evaluation of the influence of Islamic culture, we must admit that it played a limited role during the early period of the Muscovite principality, though in certain areas this influence was even then active, as in the case of ceramic manufacture, jewelry, the establishment of Moscow's own ornamentation, and the manufacture of some types of armor.

Russian trade relations and Moscow's policy of conquest were both directed east and south (Russian trade with the West was much more limited) and these constituted the basis for this impact. One can confidently state that the area delimited by the Oka and the Volga was, from the thirteenth to sixteenth centuries, the contact zone of the Christian and the Muslim worlds. Similar areas existed elsewhere—southern Italy and Sicily; the Iberian Peninsula (particularly the Moorish lands, Andalusia); the Balkans and Hungary and Poland. These can provide data for comparison.

The similarity of many of the processes involved is obvious. Everywhere there was a spread of advanced ceramic technology; in Spain and Italy the true Moorish hybrid types of majolica will appear. Trade in eastern textiles, particularly silk, became the basis for attempts to establish the local manufacture of Oriental rugs and then silk. In Russia experiments in silk-worm cultivation began in the seventeenth century. Eastern armor became fashionable, particularly near the contact zones (fig. 14). Jewelry (including liturgical objects), architecture, ornament were all significantly affected (fig. 15). It is sufficient to point to such items as the reliquary from the beginning of the eleventh century in Orvieto with its pseudoepigraphic Arabic inscription, and the numerous imitations of Kufic in Romanesque architectural
decorations of Spain, Italy, southern France, and elsewhere.  

To a certain extent, the gradual receding of the contact zones deeper into the Islamic lands to the south and the east appears analogous. We may recall the creation of such a zone in Syria and Palestine as a result of the Crusades. Of course we do not see a similarly developed and shaped contact zone in the Russian northeast. Russia, for instance, had only a few imitations of Arabic writing (the exceptions are in fourteenth- and fifteenth-century coins, some embroidery, and sixteenth- and seventeenth-century armor). Local manufacture of textiles and glass on the basis of Islamic technology did not become established. Yet a certain hybridization in the manufacture of ceramics, for instance, is traceable. On the whole, one may say that Russia, despite its affinity with, and even direct participation in, the world of Islam, exhibited with its own peculiar, but still surprising, steadfastness, an immunity to its direct neighbors to the south and east.

It appears to us that there were two historical reasons for the slackening of Islam's cultural influence in the Muscovite principality. First, direct contact was established only with relatively undeveloped cultural zones of Islam. The Mongols did not give Russia direct contact with the most important and fully developed centers of Islamic civilization. In a sense, one may speak of the meeting of two peripheries. Second, the effect of "peripheral lag" meant that most of the contacts fell into the period between the fourteenth and the sixteenth centuries when Islam, in many areas of technical culture, economics, and the
LEONID A. BELIAEV AND ALEXEI CHERNETSOV

Fig. 14. Shield of Longinus with pseudo-Arabic inscription. Detail of wall painting of the Church of the Ascension, Volotovo field, Novgorod. Third quarter of the 15th century.

Institute of Archaeology
Academy of Sciences
Moscow, Russia
(translated from the Russian)

NOTES

Authors' note: This paper was conceived as part of an introduction to a larger study dealing with the art and archaeology of the principality of Muscovy. It has been reworked for the aims of this publication.

1. V. V. Bartol'd, Istoriia izuchenia Vostoka v Evrope i Rossii (Leningrad, 1929) and his proto-Eurasian opinions.
5. In Moscow, silver coins were found in the 1830’s during construction of the Cathedral of Christ the Savior; among them were a Tahridir (Merv, 862) and an Abbasid (Dvin, 866) coin. A hoard of dirhems was discovered near the Simon monastery; and coins minted in various cities (Baghdad, Samarqand, Khuzistan, Nishapur, Kufa, Isfahan, Shish, and others) have been found in suburban settlements and towns located near waterways. A summary and bibliography can be found in A. G. Vekler and A. S. Melnikova, Moskovskie klady (Moscow, 1988), pp. 180–84. See also V. V. Petrukhin, Nachalo itokinuyu monzistori Rossi 9–11 vv. (Smolensk Mos- cow, 1995), pp. 92–93.


7. It is interesting that the Russian coins that were briefly minted at the end of the tenth century by the princes Vladimir Sviatoslavich, Sviatopolk, and Yaroslav the Wise reflected in their design the influences of Sasanian coins. See A. A. Il’in, Topografiia kladov dreverusskikh russkikh monet X–XI vv. i monet udel’nogo perioda (Leningrad, 1924), pp. 5–6.


10. Kashmir, Khurasan, and Badakhshan were the main centers of production. The territory of diffusion for these beads coincides with the area of Arabic coins in Russia. The inflow of cornelian reached its peak in the eleventh century; it diminished in the twelfth, and had practically ended by the thirteenth. Consequently, the Moscow layers contain considerably less cornelian and rock crystal than the older surrounding mounds. A cornelian “scarab” was found in Staraya Ladoga, in northern Russia, that is similar to the ones known to exist in the area between Scandinavia and the Caucasus. O. I. Davidian, “Skarabei iz Staroi Ladogi,” Arkhеologicheskie Sbornik 29 (1988).


13. Darkevich, “Mezhdunarodnye sviazi,” pp. 388–89. Clearly, archaeology does not reflect the entire range of Eastern imports, food items (dried fruit, etc.) cannot easily be detected, though rare cases of remnants do exist—for instance, walnuts were found in the layers of Novgorod. Their import began at the end of the tenth century, reached substantial amounts in the eleventh and twelfth century, and gradually ended in the first half of the thirteenth. Fluctuations in amounts of nutshell in layers can be explained by interruptions in trade relations on the Dnieper and by Tatar invasions.


16. O. M. Oleinikov’s results have not been published. His main conclusions are that the existence of glass-blowing in pre-Mongolian Russia has not been proved. Discoveries of the remnants of two glass manufacturing facilities, one in Kiev, the other in Liubech, are suspect because of the unsophisticated excavation methods used. Chemical compounds in glass do not indicate either a workshop or place of manufacture or distinguish the production of medieval Russian glass blowers from any other. Hence the possibility that in Russia imports from far-away lands, especially the Mediterranean and towns of the Islamic East, were widely represented. The manufacture of bracelets could scarcely expect support from either prince or church, but it required considerable investment and good organization, including the importation of raw materials not available in Russia. Without this it would have been difficult for local manufacturers to compete with the well-organized glass industries of Syria, Egypt, and Byzantium. Importing inexpensive bracelets from their places of manufacture could simply have been more profitable than organizing local production. It is precisely this relationship between supply, demand, and manufacture that we are discussing here.

17. Among Moscow finds, two fragmenta of vessels have been identified as Syrian (glass of the Na-Ca-Si type, made colored with manganese; characteristic design in opaque colors and gold upon clear, colorless glass). One of them has a design in the shape of Arabic letters on a blue-violet background, within a frame. Decoratively painted and/or gilded eastern glass is most often found in the northwest (Novgorod, Turov, Pinski); see F. D. Gurevich, R. M. Dzhanpoladian, and M. V. Malevskiaia, Vostochnoe steklo v drevnei Russi (Leningrad, 1968). During excavations on the Lukinichi estate in Novgorod (certainly not the richest family
17. Among the Moscow bead finds, E. K. Stoliarova identified Syrian blue-violet beads from the second half of the twelfth century. Others are similar to the round, biconical beads made of opaque turquoise glass, and found in the medieval town of Bolgar from the middle of the thirteenth century. The analogue of the only Moscow bead with a multi-colored base has been found there too (they are also known to exist in the medieval towns of Sarkel and Afrasiab in Central Asia, and in the Russian towns of Novgorod and Belozero. Most these beads date back to the eleventh century; examples from the twelfth also exist but are very rare.

18. Among Central Asian textiles, zarandaeji, from the Zandana settlement in a Bukhara suburb, were particularly popular. See Darkevich, "Mekhdunarnodnye sviazhi," pp. 388-89. M. V. Fekhner, "K istorii torgovki svialei Rusi so stranami Vostoka v domongolske vremya (po materialam shelkovykh tkanei)," Kazkas i Sredneiasia v drevnosti i srednevekowie (Moscow, 1981), pp. 139-45.


20. Based on the analysis of approximately 300 burials (including 33 that were particularly rich), Fekhner distinguished three particularly prominent groups of finds connected with the lands around Vladimir, Kostroma, and Moscow; M. V. Fekhner, "Shelkove skani v srednevekovoi Vostochnoi Evropy," Sovetskaia Arkeologiya 2 (1988): 57-70.

21. Byzantine textiles were found in burial mounds around Moscow, both decorated and plain, without metallic thread (Besedy, Odinstoivo, Chertanovo-4, etc.); with gold thread, from the twelfth century (Nikulskoe, Novlenskoe, Pushkino); and a band with portraits of saints found in the Kremlin in the cemetery under the Uspensky Cathedral; see M. V. Fekhner, "Izdeliia shelkotkatskikh masterskikh Vizantii v drevnei Rusi," Sovetskaia Arkeologiya 3 (1977): 190-42. The necropolis of the Bogatyevskii monastery yielded an example of gold brocade from the workshops of Constantinople, which had ceased production after the city had been sacked by the Crusaders in 1204; L. A. Beliaev, Dreveni monastiry Moskvy po dannym arkeologii (Moscow, 1994), p. 59.

22. Linguistics also testifies to the important role Middle Eastern textiles played in the life of Russia; Lelekov, Isskustvo Dreveni Rusi i Vostok.


24. The majority of Russian historians, beginning with the compilers of the annals in the fifteenth and sixteenth century, looked upon the subjugation of Russia with single-minded negativism. Such indisputable facts as the destruction of cities, losses in population and property, long exclusion of northeastern Russia from the sphere of direct diplomatic and cultural contacts with Europe, economic exploitation, encouraging of political disunity, and constant military intervention in Russian affairs until the end of the fifteenth century are cited. In the first half of the twentieth century, a school known as the "Eurasians" began to reconsider this attitude; it has been represented in recent times by L. N. Gumilev and his followers.

25. For example, the coarsening of household ceramics, noticeable in the second half of the thirteenth or beginning of the fourteenth century (simplification of technology, increased percentage of crude body) is not necessarily linked to the invasion. It is apparent in the Volga-Oka lands in the pre-Horde period, and is a result of a typical process of colonization—accelerated land settlement, broadening of the kinds of ingredients, etc.


28. Glazed tableware was not manufactured in Moscow between the eleventh and the thirteenth century. This production does not begin to appear until the second quarter of the fourteenth century, approximately at the same time as the building of the oldest stone cathedrals. It might have evolved for the purpose of covering church floors. Glazed clay was also used for making toys, beads, and, rarely, common bowls and pots. See T. I. Makarova, Polivniaa keramika. Iz istorii keramicheskogo importa i proizvodstva Dreveni Rusi (Moscow, 1967); Latyshova, Torgovye sviazhi Moskvy, pp. 223-25; Rozenfeld, Moskovskoe keramicheskoe proizvodstvo, pp. 48, 69-70, fig. 23. T. D. Avdusina, N. S. Vladimirskaia, and T. D. Panova, "Russkaia polivniaa keramika iz raskopok v Moskovskom Kremle," Sovetskaia Arkeologiya 1 (1984): 201-11; Beliaev, Dreveni monastiry Moskvy, pp. 62, 161, pls. 23. 2; idem, "Srednevekovyi nekropol Kolomenskogo," Muzei Kolomenskoe, Materialy i Issledovaniia, 1991, pp. 52-53, fig. 5C.

29. They are usually found in cemeteries, since they were used to sprinkle unction on the departed. Examples from the end of the fourteenth century are rare and small in size. There are more finds in the fifteenth century, and their size and shape vary; Avdusina, Vladimirskaia, and Panova, "Russkiaa polivniaa keramika," pp. 205-8; Beliaev, Dreveni monastiry, pp. 116-17, 161, pls. 89-91; 193,4; "Srednevekovyi nekropol," pp. 50-51.

30. There is a group of expensive tableware "minal" finds, and
lustreware from Iran, in the pre-Mongol town of Staraia Riazan' on the Oka river.

31. Koval', has recently compiled an inventory of eastern ceramics found in archaeological excavations in Moscow; V. U. Koval', "Keramika Vostoka v srednevekovoi Moskve," Rossiiskaia Arheologiya, nos. 2 and 3 (1997). Moscow became the only Russian city where imported Eastern tableware is found in the layers dating from the sixteenth and seventeenth century and continues to surface in the eighteenth and nineteenth (Chinese porcelain and Turkish smoking pipes). This, of course, reflects not so much the absence of Eastern tableware in other post-medieval towns as insufficient attention paid by archaeologists to the later data. This also explains the seeming prevalence of eastern ceramics in the layers of the Golden Horde period. Of course, in the towns of the fourteenth and fifteenth century, it spread far and wide—separate fragments are even found in remote suburbs, beyond the Yauza river and in the settlement of Kolomenskoe. But the sixteenth- and seventeenth-century finds cover the map of Moscow much more evenly, leaving no empty spaces, partly because of the denser habitation of urbanized areas, partly because of the relatively wider availability of imported tableware at the time, as supported by export-import trade documentation.

32. In his last summary of tableware finds with lustre design from Iran, Koval' registered about 70 fragments dated between the twelfth and the end of the seventeenth century. V. U. Koval', "Iranskaia lustrovaia keramika v srednevekovoi..." Tver, Tverskaiia zemlia i sopredelnye territorii v epokhakh srednevekovoi 1 (Tver, 1996): 235–40.


34. Of particular interest is one of these vessels that still contain mercury; it was found in a cache hidden in the Kremlin in one of the courts used by the boyars dating from the last third of the fourteenth century. The cache consisted of documents belonging to the Veliaminovs, a family of Moscow military commanders. One of the Veliaminovs was executed in Moscow in 1379 on charges of treason, clandestine negotiations with the Horde, and an attempt to poison the princely family.

35. This does not mean that the taste for eastern ware disappeared. These objects continued to be admired and sometimes used to decorate façades of churches; for example, the Trinity Church in the Khoroshovo settlement, where large plates of Iznik ware are fitted on the façade. Among the gifts from the city of Bukhara to Tsar Fedor Ivanovich, mention is made of "a small jar," saucers, and bowls "of value"; dozens of similar container are mentioned in the inventory of Boris Godunov's betongings (1589); similar bowls and plates were donated to monasteries (they are mentioned in the inventory of the Blagoveschenskii Cathedral in Solvychevorsk in 1579). See M. V. Fekhner, Torgovlia russkogo gosudarstva so stranami Vostoka v 16 vek (Moscow, 1956), pp. 93–94.

36. The most renowned, although still unpublished, treasure, found under the floor of the Kremlin's Blagoveschenskii Cathedral in 1860, is a splendid testament to the variety and value of Eastern tableware. It contains thirteen wholly preserved objects and fragments. Among them are two vessels for rosewater, one smooth turquoise, the other with a black design, both dating to the fourteenth or fifteenth century; a jar made of yellow clay with blue underglazed design (end of the 14th c.); two bowls of the Timurid type (one from Samarkand, the other from Sultanabad); and finally two bowls and a plate of Chinese celadon, plus some fragments. The treasure has until recently been assigned to the sixteenth century; however, it is possible that it might date back to the fifteenth.

37. Turkish ware was still popular in the seventeenth century. Later it was limited to Turkish smoking pipes imported into Russia as late as the nineteenth century. Turkish ceramics were encountered even in the remote Caucasian regions. They are sometimes found in gravesites of Muscovites in the eighteenth and nineteenth century as vessels for holy oil, for they vaguely look like the first glazed unction containers of the fourteenth century. One of the later Turkish phials with a blue enamel background and flower design was found in the necropolis of the Danilov monastery.

38. Saucers with underglazed blue design and the motto of an emperor from the Ming-Chen-Huan dynasty (1465–87) are found in medieval layers. The porcelain belonging to the son of Ivan the Terrible and preserved in the Kremlin Armory belongs to the same group of tableware. T. B. Arapova, "Kiriaiskie izdelia khudozhestvennogo remesla v russkom interferi 17-pervoi chetverti 18 v." Gosudarstvennyi Ermitazh, Trudy 7 (1965), fig. 1.

39. According to calculations made in the 1940's, approximately twenty accurately dated items from the thirteenth to the fifteenth century were known, as well as the names of eight master craftsmen; T. V. Nikolaeva, Proizvodennia russkogo prikladnogo iskusstva s nadpisimi 15-16 v (Moscow, 1971); B. A. Rybakov, Russkie datirovannye nadpisi XI-XV vv. (Moscow, 1964); idem, Remeslo Drevenoi Rusi, p. 619.

40. The crystal bowl has a handle, which is necessary for a chalice. A silver bowl is placed within the crystal one, with an engraved image of Christ, Mary, John the Baptist, and two angels on the outside. The image is visible through the crystal. A high stand is added, decorated with grape leaves. T. V. Nikolaeva, Sobranie drevenorskogo iskusstva v Zagorskem musee (Leningrad, 1968), no. 95; T. I. Makarova, "Oblachenie mitropolita Alexeia i yuveliry Moskvy 14 veka," Kul'tura srednevekovoi Moskvy (Moscow, 1995), pp. 48–52. On the whole, the collection of sacramental vestments (sakkos, porachi, and epitrakhil) is extremely old. For a long while they were thought to date back to the twelfth or thirteenth century; only recently did A. V. Ryndina indicate the possibility that they were crafted by fourteenth-century Moscow jewelers. This view is supported by T. I. Makarova, who studied them during the restoration of the sakkos by the restoration workshops of the Moscow Kremlin.

42. Sources say that Alexei cured the queen's eye disease. The day before his arrival, Taidulla had a dream, in which he stood before her dressed in his bishop vestments. She had "in accordance with the image, those holy chasubles" made, and presented them to the metropolitan. This subject is first depicted on the "Life of Alexei" icon from the 1480's. See N. M. Karamzin, *Istoriiia Gosudarstva Rossisskogo*, 15 vols. in 6 (St. Petersburg, 1892), 3:127, n. 584.

43. E. Piltz, *Kamelaukion et mitra. Insigines byzantins impériaux et ecclésiastiques* (Stockholm, 1977). From the 1980's, the issue of the origin of the filigree which decorates the "hat" has been studied in detail; M. Kramarovsky and B. Marshak offered a detailed stylistic and technological examination of separate elements in both the hat and the "Tver coffers", determining dependence of the two on traditions of Oriental jewelry production, or more precisely, upon the variant of a style which developed in the 13th and 14th centuries (M. G. Kramarovsky,"Vostok v Moskovskoi filigrani kontsa 14 - pervoi poloviny 15 v."

44. M. M. Postnikova-Loseva, "Zolotoi oklad litsevogo Evangeliia Povolzh'ia 75-81; G. A. Fedotov-Davydov, *Istoricheskogo Muzeia

45. In order to be convinced of the existence of a large num-

46. M. M. Postnikova-Loseva, "Zolotoi oklad litsevogo Evangeliia Povolzh'ia 75-81; G. A. Fedotov-Davydov, *Istoricheskogo Muzeia

47. A. V. Ryndina and Andre Grabar, *Vostoke," ibid., pp. 63-66; Marilyn Jenkins, "Mamluk Jewelry: Influences and Echoes,

48. The panagia served as storage for consecrated bread dur-


51. Nikolaeva, *Prikladnoe iskusstvo*, figs. 55, 56; Yakobson, *Khudostavnennye serebrarykh panaghii,"* fig. 7. One of the Moldovan-Wallachian panaghias dates back to 1490-91 and was presented by the shupan Draghici Vintilcescu to the Snagov monastery; the panagia from the Bystra monastery is similar to it. Still another dates to 1502 (a gift from Stefan el Mare to the Neamţ monastery); I. Bâne, O. Iliescu, C. Nicolescu, *Culura bizarina in România* (Bucharest, 1971), nos. 98, 99; *Studii asupra tezaurului restituit de U.R.S.S.* (Bucharest, 1958), figs. 5-8, 41-42.


53. A popular technique, particularly in the Islamic lands, as was the blackening of backgrounds which can be compared with blackened and minted ornaments on icon covers; see Yakobson, *Khudostavnennye serebrarykh panaghii,"* figs. 8, 9; Nikolaeva, *Prikladnoe iskusstvo*, ill. Troite-Sergieva Lavra.

54. There are similar examples from the Pafnutiev Borovskii monastery, now in the Kolomenskoe Museum; from the churches of Sergius of Radonezh and John Climacus in the Kirillov Belozerskii monastery; from the church of John the Merciful in Micchina (Novgorod); from St. Sophia (Novgorod); from the church of the Ascension in Rostov, and others; Yakobson, *Khudostavnennye serebrarykh panaghii,"* fig. 1:5, p. 248, nu. 15-29; *Russkie dekoratsionnoe iskusstvo 1* (Moscow, 1962), figs. 3—35; M. T. Preobrazhenskii, *Pamiatniki drevnerrusskogo zodchestva v predelakh Kaluzhskoi gubernii* (St. Petersburg, 1891), p. 50; A. A. Bobrinskii, *Narodnye russkie dereviannym izdelia* (Moscow, 1914), pls. 178, 1-4; 180-1; 1-3; cf. 189, 4.

55. For the portals on the fourteenth-century mosque in Stary Krym and the 1501 Khodza-Ghirei palace in Salachik, near Sarai; Yakobson, *Khudostavnennye serebrarykh panaghii,"* fig. 12; idem, *Srednevekovyi Krym* (Moscow, 1964). Sejfuq engraved orna-


57. It was first observed in a fourteenth-century manuscript of the biblical text; it spread only after the second half of the fifteenth century. It is mentioned in connection with a de-


59. The earlier flat brick was replaced in Moscow by European-style brick only after the arrival of Aristotel, or Aristotle, Fioravanti, but continued in use to the middle of the sixteenth century. This change in the brick's shape surprised the Moscovites, as suggested by the description of the Uspehenskii Cathedral construction.

60. These friezes have been the subject of many discussions. Their prototype was seen to be in Balkan-Moravian, Georgian, and earlier Russian ornamentation; G.K. Vagner, Ot symvolov k real'nosti (Moscow, 1980); the closest to a solution was probably Lelekov, who suggested treating these ornaments as a variety of arabesque; L. A. Lelekov, "Izobrazitel'noe Iskusstvo Drevenoi Rusi v ego sviazakh s Vostokom," Drevuresskoe Iskusstvo: Zarubezhnye sviazii (Moscow, 1975), pp. 55-80.

61. There are in Bulgaria wonderful collections of architectural tiles exhibiting complicated arabesque types, rather closely imitated in the carvings of Zvenigorod churches; L. P. Matveeva, "Polivnye izrazhiz iz Bolgari," Sotsvetstvo Arkeologii 2 (1959), figs. 1-2. A beautiful example of arabesque, described as "trefoils tied up with a vegetal stem," is found among the majolica ornaments on the tombstone from the medieval town of Vodiansk. L. M. Noskova, "Mozaiiki i pavimento srednevekovykh gorodov Povolzh'ia," Srednevekovye pamiatniki Povolzh'ia (Moscow, 1976), p. 15b, fig. 2. The similarity of this motif with a portal carving in the fourteenth-century mosque in Solkhat (Staryi Krym) is also striking. There is an earlier instance of the penetration of Islam's geometric ornament into the architectural decoration of churches in the Russian Volga region. The tiles on the floor of the 1359 church of the Archangel Michael in Nizhniy Novgorod are decorated with carved six-pointed stars, which are done in unusual carving technique on clay filled with white clay paste. This town was the Russian princely capital closest to Bulgarian lands; N. N. Voronin, Zodchestvo Vladimiro-Suzdal'skoi Rusi 12-15 vv., 2 (Moscow, 1962): 212-13, figs. 105-6. Vygolov demonstrated an interesting process whereby Oriental and Renaissance motifs were mixed to-gether in the façades at the end of the fifteenth century; V. P. Vygolov, "Russkaiia arkhitekturnaiia keramika kontsa 15-nachala 16 veka: o pervykh russkikh izrazitsakh," Drevenurskoe Iskusstvo: Zarubezhnye sviazii (Moscow, 1975), pp. 282-317.

62. The first Vladimir-Suzdal' white-stone churches decorated with carving had a rather modest design of the Romanesque type. At the end of the twelfth and beginning of the thirteenth century, sculpture was influenced by Orthodox iconography. André Grabar pointed out a significant number of Islamic motifs in the carvings of the most sumptuously decorated cathedrals, the Dmitrievskii in Vladimir and Georgievskii in Yuriev-Polskoi; V. K. Vagner, Skulptura Vladimirsko-Suzdal'skoi Rusi (Moscow, 1964); idem, Skulptura Drevenoi Rusi 12 vek. Vladimir. Bogoliubovo (Moscow, 1969); idem, Bolokamennia rez'ba drennego Suzdalia (Moscow, 1975); André Grabar, "SVetskoe izobrazitel'noe iskusstvo domogolskoi Rusi i Slovo o Poku Igoreve," Trudy Otdela Drevenurusskoi Literatury 18 (1962).


65. Examples of sixteenth- and seventeenth-century Islamic architecture and carving, albeit quite modest, remain in the town of Kasimov on the Oka. Numerous examples of late-Islamic architecture on the territory of the Golden Horde still await examination. General summary in V. L. Egorov, Istoriyakaiia geografia Zolotoi Ordry v 13-14 vv. (Moscow, 1985). The tombstones of the Arkhangelskii Cathedral have not yet become a subject of specific research, but the influence upon them of eastern flower ornamentation is evident. For examples of vegetal ornamentation on Russian tombstones, see Beliaev, Russkoe srednevekovoe nadgrabie, pp. 306-7, fig. 34. Sixteenth-century glazed tiles, which are thematically quite close to Islamic tiles but unquestionably of local manufacture, were recently found in the area of medieval ceramic workshops; S. L. Dzvonkovskii, "Arkhitekturo-arkheologicheskii khokhodki na ust' vaury," Restorator i Arkheitkturnaiia Arheologiia 2 (1995): 73-76; A. G. Veksler, "O nekotorykh khokhodkakh reliifykh izrazotsv Moskve," Kolenskoe Museum, Materialy i Issledovaniia 5 (Moscow, 1993): 138-48; L. A. Beliaev, "Moskovskie pechnye izrazotsy do nachala 16 veka," ibid., pp. 8-22.


69. Influences on armor in Russia before the end of the fifteenth century is an important subject which we can touch upon only marginally. It has not been much dealt with by archaeologists. I shall point out two recent discoveries in Moscow, dating to the thirteenth and fourteenth century. Both were found in layers from fires, both probably belonged to the Horde's soldiers. They are an archer's ring and a whip handle, both made of bone. Similar handles, in a barrel shape with a spiral, were popular in the Steppe and in the middle Volga regions in the thirteenth century; from there they entered Russia. Archers' rings were well known in the area between India and Bosnia. Bowmen used these rings to protect the thumb from being chafed by the string. In

70. Nikita Davydov was one of the leading craftsmen in Moscow, working up to the 1660's. He is considered the father of Russian armor-making; many seventeenth-century craftsmen, including foreigners, apprenticed with him. It is interesting that his favorite student and successor was a slave, "Mishka the Tatar," purchased somewhere en route from Constantinople; Oruzheinaiia palata (Moscow, 1964), pp. 20-21.

71. Sources disagree as to whether the crown was designed for the Moscovite viceroy in Kazan, or for Ivan the Terrible himself as the tsar of Kazan. This affects neither the date (first half of the 1550's) nor the place of manufacture (Moscow). In either case it is undoubtedly the product of a mixed, Moscow-Kazan taste.

72. The helmet is in the Royal Armory of Stockholm. I am not aware of any scholarly publications about it. See A. A. Bobrinskii, "The Helmet of Ivan the Terrible," Zapiski Rossiiskago Arkheologicheskogo Obshchestva 12, n.s. Trudy otdeleniia slavianskoi i russkoi arkheologii, bk. 3, (St. Petersburg, 1889). See also A. Lagrenius, Knygina Lyfrsammaren och dermed fornade samtlingar (Stockholm, 1897), pl. XLV.

73. Russian additions to Mikhail Fedorovich's helmet were made before 1621. The Kremlin Armory has several helmets of eastern craftsmanship which belonged to tsars and important boyars. Some of them are trophies, as is the helmet of the Siberian tsar Kuchum, of Iranian workmanship dating from the sixteenth century; also a sixteenth-century helmet of Fedor Ivanovich Miloslavskii, with quotations from the Koran engraved in gold, which begin with the formula "In the name of God, the Compassionate, the Merciful. . . ." Seventeenth-century descriptions carefully noted both the Islamic origin of the armor and the Arabic script. By the seventeenth century, items from India and the Far East began to reach Moscow. In 1638 a steel Manchurian helmet with Mongol script engraved in gold was brought there. Sixteenth- and seventeenth-century Indian helmets with masks and visors were accumulating in the Kremlin Armory; see N. V. Piatysheva, "Vostochnye shlyemy s maskami v Oruzheinoi Palate Moskovskogo Kremlia," Sovetskiaia Arkheologija (1968): 227-32; Oruzheinaiia Palata, pp. 17-22, and other museum collections.

74. The sabers have elements which relate them to the armor of the end of the sixteenth and first half of the seventeenth century, but Russian inscriptions have no dates earlier than 1652. One of the oldest announces: "In the year 7160 [1652], on the 2nd day of April, this saber was made by the [mercy] of the Shah, and this saber was made by the Shah's master craftsman Asazaman. And beware, ask, fight, and fear not, for no death will come unless it is so ordained. Death may cause fear, but sin makes you suffer for ever more. Amen." On the blade's other side, there is a depiction of a horseman, and two pseudo-inscriptions. It seems likely that the entire decoration is of Russian craftsmanship, although the blades are obviously Iranian. Still another blade with Russian inscriptions on both sides reads: "This saber is made to commemorate the victory over enemies of the Tsar's majesty. Assembly nobleman Stepan Bogdanovich Lovchikov bravely conquers with its aid," and "This was forged in Persia, in the year 7198 [1698] on the 24th day of March," etc. See Y. A. Miller, "Iranian Swords of the 17th Century with Russian Inscriptions in the Collection of the State Hermitage Museum," in Islamic Arms and Armor, ed. R. Elgood (London, 1979), pp. 136-48.

75. These objects still have a number of rudimentary elements characteristic of Islamic mirrors—shape, ribbed edge (rudiment of an inscription, or an epigraphic ornament), general composition, "a hunter with a dog in the thicket," and other elements. Russia substituted the horseman with the image of a centaur and simplified the general composition. It seems that Siberia in the sixteenth-nineteenth century was inundated with these items, produced in Arkhangelsk, Tobolsk, Kazan, and other towns; A. P. Okladnikov, "Bronzovoe zerkalo s izobrazheniem kentavra, naidennoe na ostrove Faddeia," Sovetskoe Vostokovedenie 13: 287-91; cf. L. I. Rempel', Tsep' vremen: vekovye obrazy i brodiaschie siuzhety v traditsionnom iskusstve Srednei Azii (Tashkent, 1987), p. 89, fig. 64, and others.