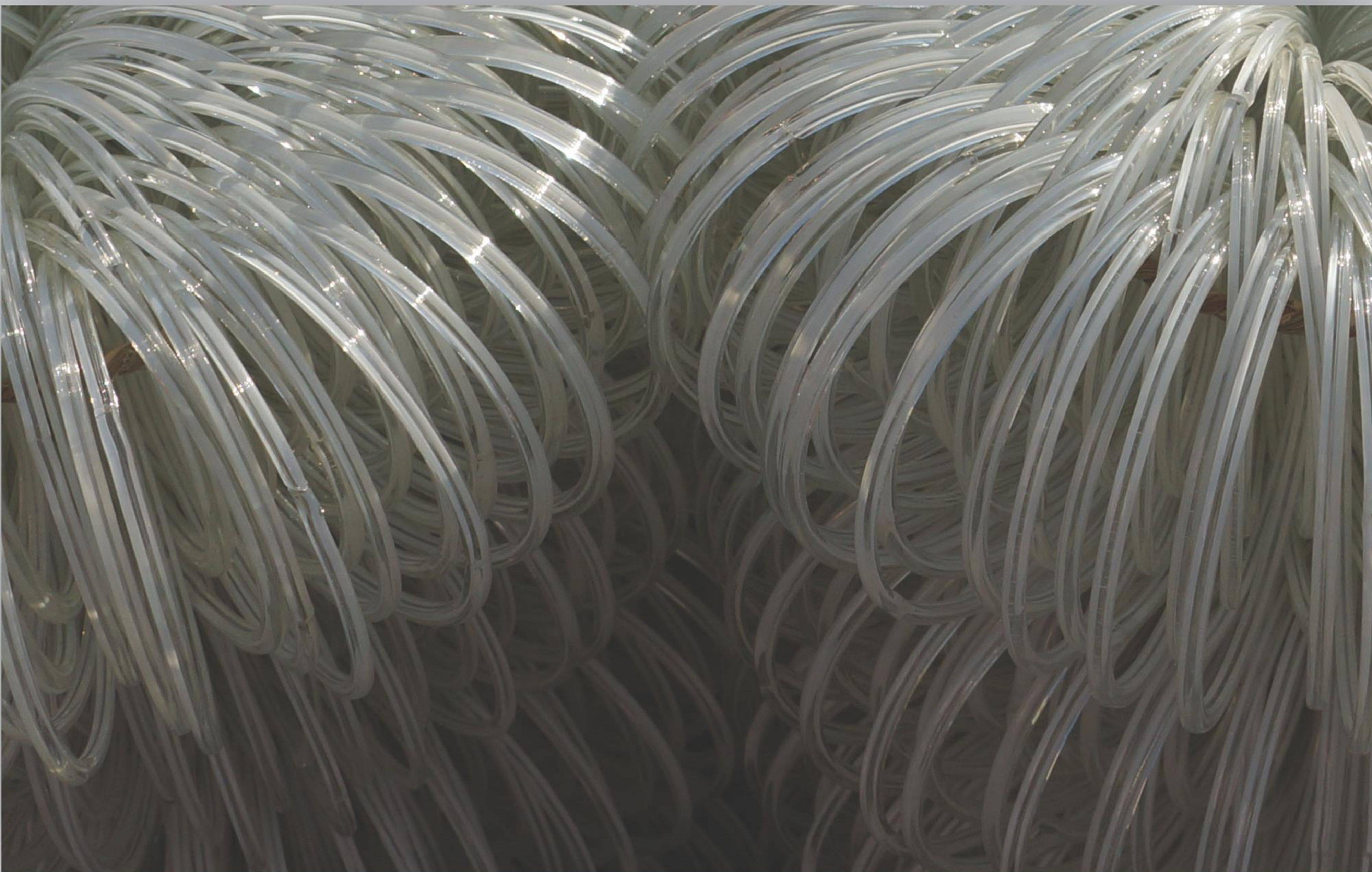


Firozabad India 2015





Compiled by: Sterre Sharma and Anju Chowbey

Photography Sterre Sharma

Firozabad

Firozabad is located in North Central India, Uttar Pradesh, 40 km from Agra and 240 km away from New Delhi.

The name of this town was Chandwar Nagar before it was changed to Firozabad during Emperor Akbar the Great's reign.

Akbar sent a commander named "Firoz" to create a military encampment to stop the looting of tax revenue being transported through the city.

Akbar's army consisted of soldiers some of whom were hired from beyond the borders of the subcontinent. These soldiers brought their culture and customs along with them, including the use of glass bottles and bangles.

The local people admired the shiny new glass and collected the broken pieces to melt in small locally made ovens and then transformed this into small bottles and bangles for themselves, and their clients.

This was the start of the glass industry in Firozabad.

There are local rumours that about 150 years ago a foreign woman from Scandinavia introduced the method of candling for making glass beads.

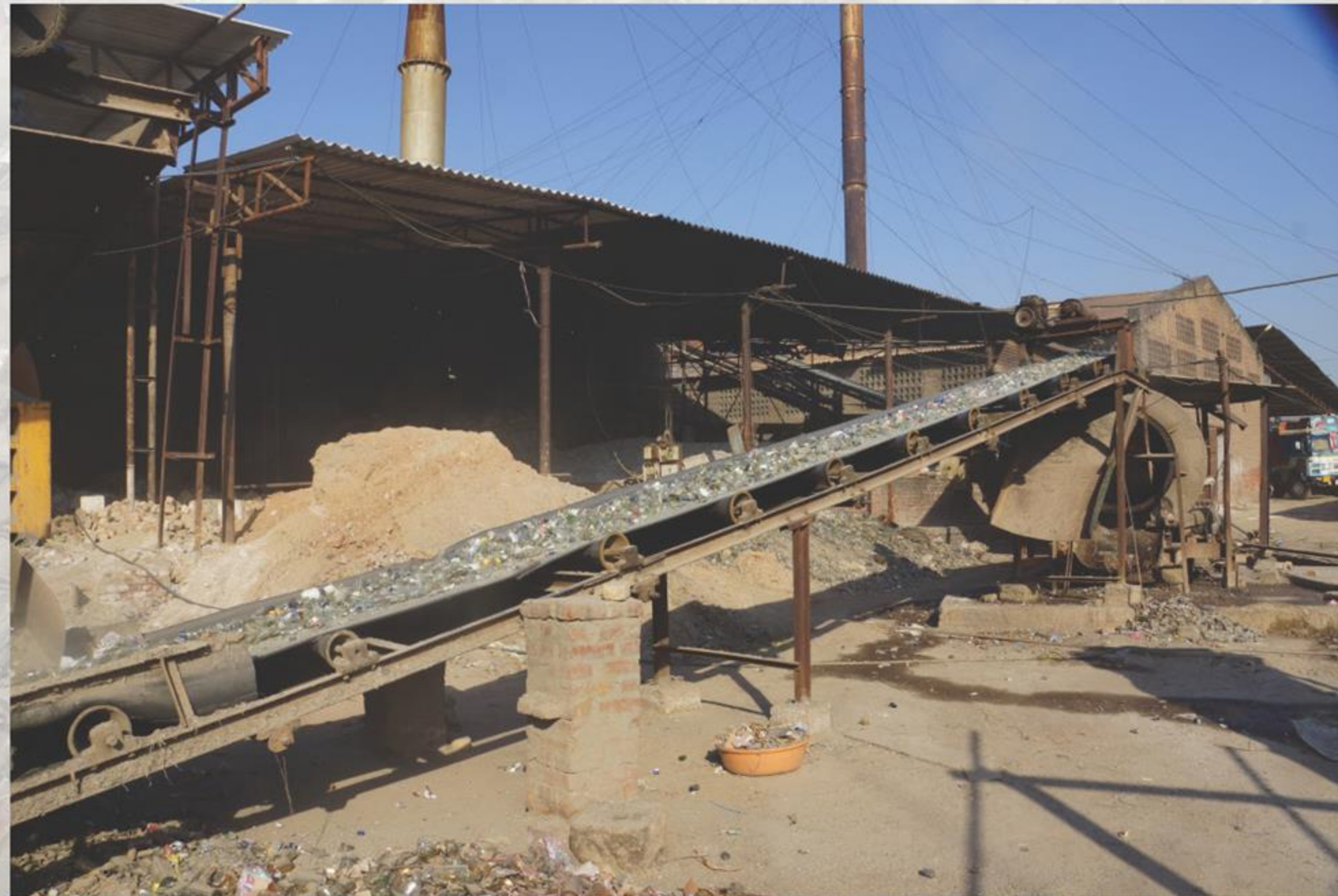
Practically every road, nook and cranny of this city bears the mark of the glass industries.

Push carts filled with sparkling rainbow coloured bangles are carried to the artisans workplaces, where each of the many different steps required to achieve the final product are carried out.



The glass in Firozabad is mainly made of fused quartz—also called fused silica glass—glass scraps, soda, zinc and a few chemicals.

Recycling glass is generally an environmentally friendly process, it saves on raw materials and energy, though it can lead to impurities and equipment failure during the manufacturing process.



In the Meera glass factory in Firozabad we saw how this was done. Workers sorted out caps from a pile of bottles. The glass was then shovelled on to a conveyor belt. Two women checked for any unwanted scrap before the glass reached its end destination: a crushing container and a tumbler for washing the glass. The crushed clean glass was then mixed with all the other needed ingredients before it was sent to the smelter. The smelter spat out bolts of red-hot glass, which were then pressed into moulds, making new bottles, bowls and lampshades.

Simple description of bangle making.

There are between 60 to 80 steps to make a glass bangle depending on the design.

It is a labour intensive process employing many unskilled and semiskilled people.

only a few of the steps required are described here and include:

1. Collection of all the raw materials, the gathering of which in itself has many processes. Materials include scrap glass, silica, soda, lime, colours, water, and sometimes lead oxide. Depending on the final product, there are some other ingredients that are needed such as glitter powder, foil, additional chemicals or coloured glass pellets.
2. The glass is cleaned.
3. Glass ingredients are crushed and mixed.
4. The crushed and mixed ingredients are heated in the smelter.
5. Men pick up the lumps of molten glass with long iron rods.
6. The lumps of molten glass are cut with scissors and pressed manually with metal implements into rectangular shapes of uniform size.
7. Strips of another colour of molten glass are placed according to the design on top of the hot rectangles.
8. The rectangles are inserted into another smelter and placed onto a rod of the correct size bangle to be made.
9. The rod turns as the hot glass is put on it, creating a continuous thin line of glass that winds around it.
10. The strip of bangles is removed from the rod, cooled, and sent for a quality check.
11. The quality checker removes the defects from the strips of bangles.
12. The bangles are cut with a blade to separate each one from the others.
13. Another checker looks at the cut bangles and separates defective ones.
14. Individually cut bangles are strung together into even bunches.



15. Bunches of bangles are put on push carts to be taken for finishing.
16. Cut bangle joints are individually glued by family members in local homes.
17. Depending on the design, sets of four bangles are glued together.
18. The bangles are taken by push carts to be heated again to secure joints.
19. Depending on the design, bangles can be heated, scratched or moulded in different patterns.
20. Simple gold decoration is put by hand.
21. The gold decoration is taken to be heated again to fix the colour.
22. Lac (a sort of resin) is collected from natural sources and is processed and distributed for decoration.
23. Some bangles are taken to be decorated individually by hand with natural lac.
24. The lac bangles are decorated individually by hand when still moist.
25. Thick bangles are sometimes decorated by hand with decals and heated again for fixing.
26. Bangle bunches are separated, counted and distributed to wholesalers.
27. Orders are placed, bangles are packed and sent to their final destination all over India.
28. During each step above, individual pieces are counted. Accountants keep track of pilferage.

These are only a few of the steps that we counted.





Mathur glass













Please BUY the bangles!







Lac is the scarlet resinous secretion of a number of species of insects. The most commonly cultivated species is *Kerria Lacca*. Cultivation begins when a farmer takes a stick that contains insect eggs that are ready to hatch and ties it to a "Honge" tree to be infested. Thousands of lac insects colonize the branches of the host trees and secrete the resinous pigment. The coated branches of the host tree are cut and harvested as stick lac. The trees need six months to recover. The harvested stick lac is crushed and sieved to remove impurities. The sieved material is then repeatedly washed to remove insect parts and other soluble material. The resulting product is known as "Seed lac" and is then processed into shellac by heat treatment or solvent extraction.

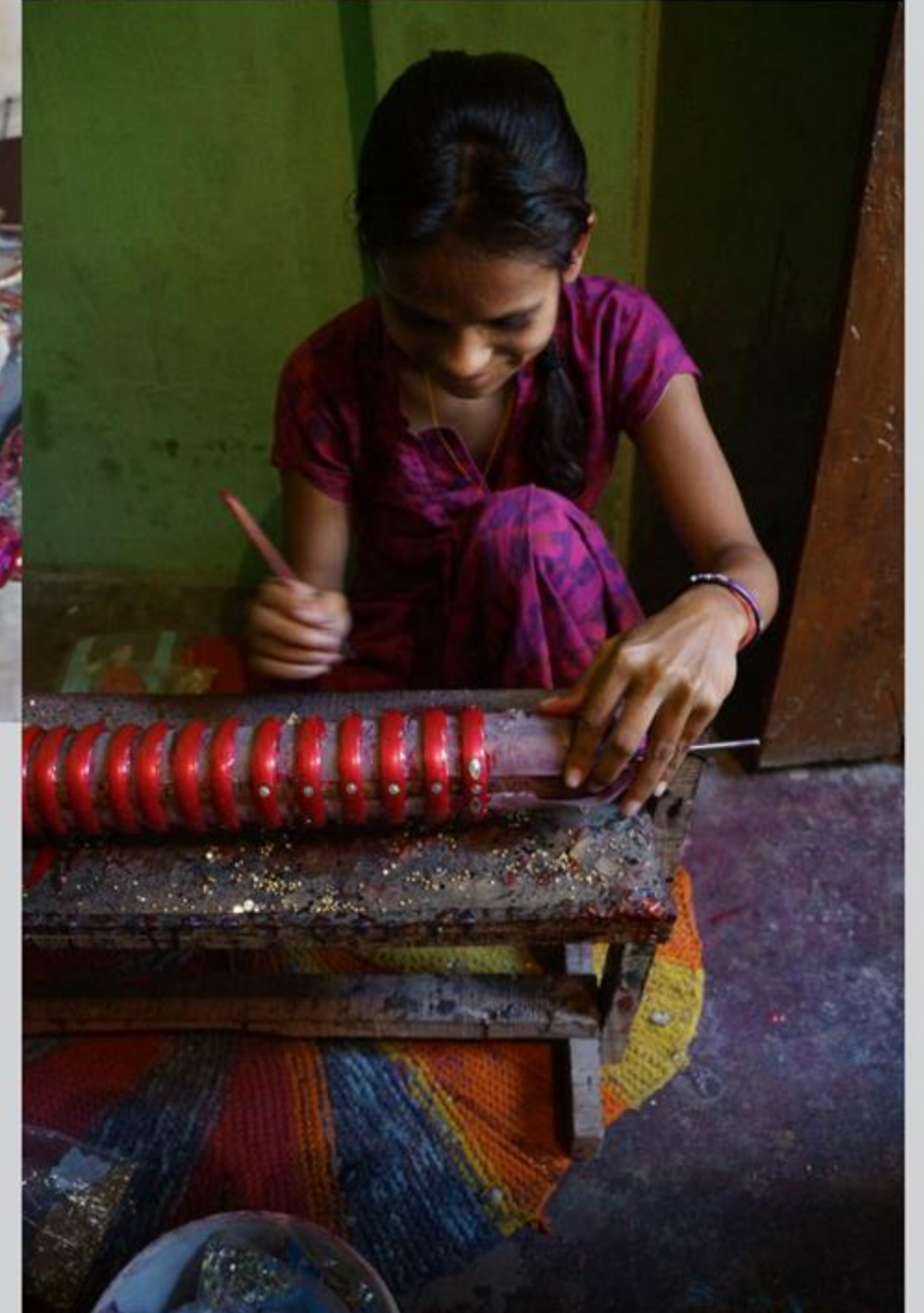


If shellac is being produced, most insects escape alive from the process. The leading producer of lac is Jharkhand in India.



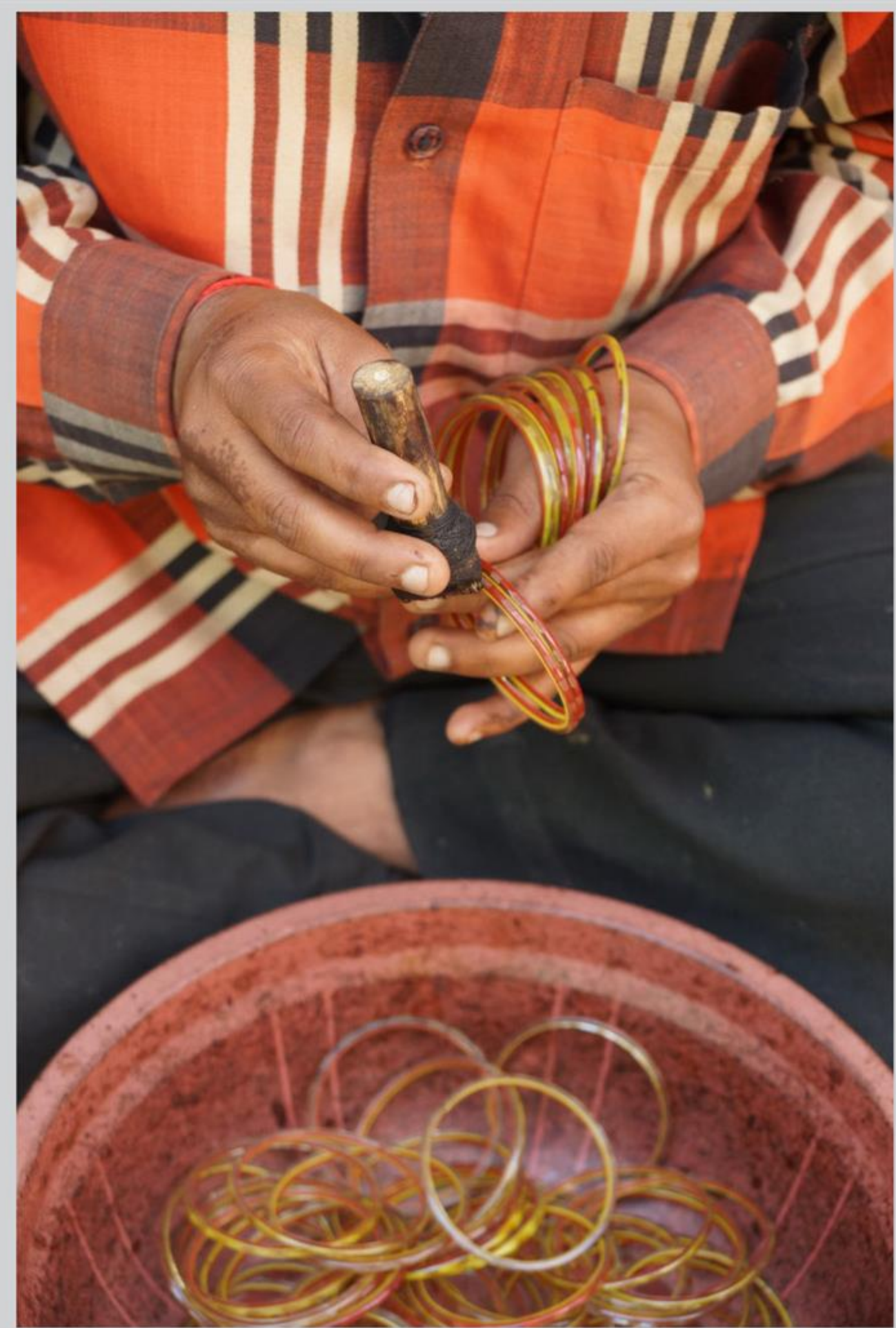


Lata, age sixteen, student in the tenth class.
Location in Kailash Nagar





श्री गणेशाय नमः
श्री लक्ष्म्यै नमः



Name of above craftsperson: Jeevan
Gali, 6 in Durga Nagar, Firozabad.



These bangles are called Heel Ki churi.
Gold dust is mixed with eucalyptus oil (locally called elichi oil) and applied to glass bangles.
The gold shine only shows after firing the bangles again!

Wholesalers: Aftaab Bangles, G.S. Bangles Durga Nagar Firozabad Mob:0091-9410423700



Heel ki Churi, worn traditionally by married women in India.



Glitter powder wholesaler

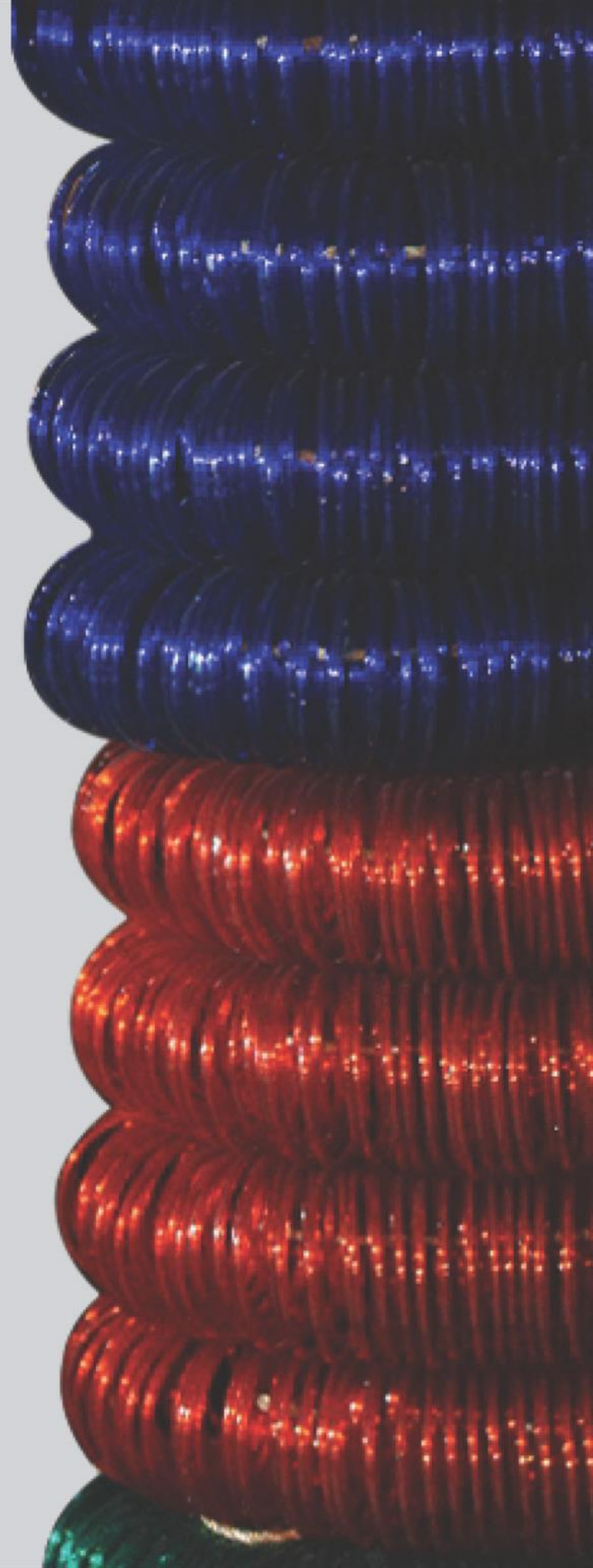


Foil paper wholesaler

name of glass bangle market Gali Boram Firozabad UP
India



The market consists of one narrow alley connected to a web of even smaller pathways. Old stone carved haveli sparkle on both sides of this passage. The walls are dressed in bright yellow, pink and blue enamel paint hiding a bygone era of wealth and entitlement.





बिप

ALL TYPES OF FANCY BANGLES
HOLE SALE DEALERS
GALI-BOHRAN - F. Z. D.
M. 7417305061-9756418000

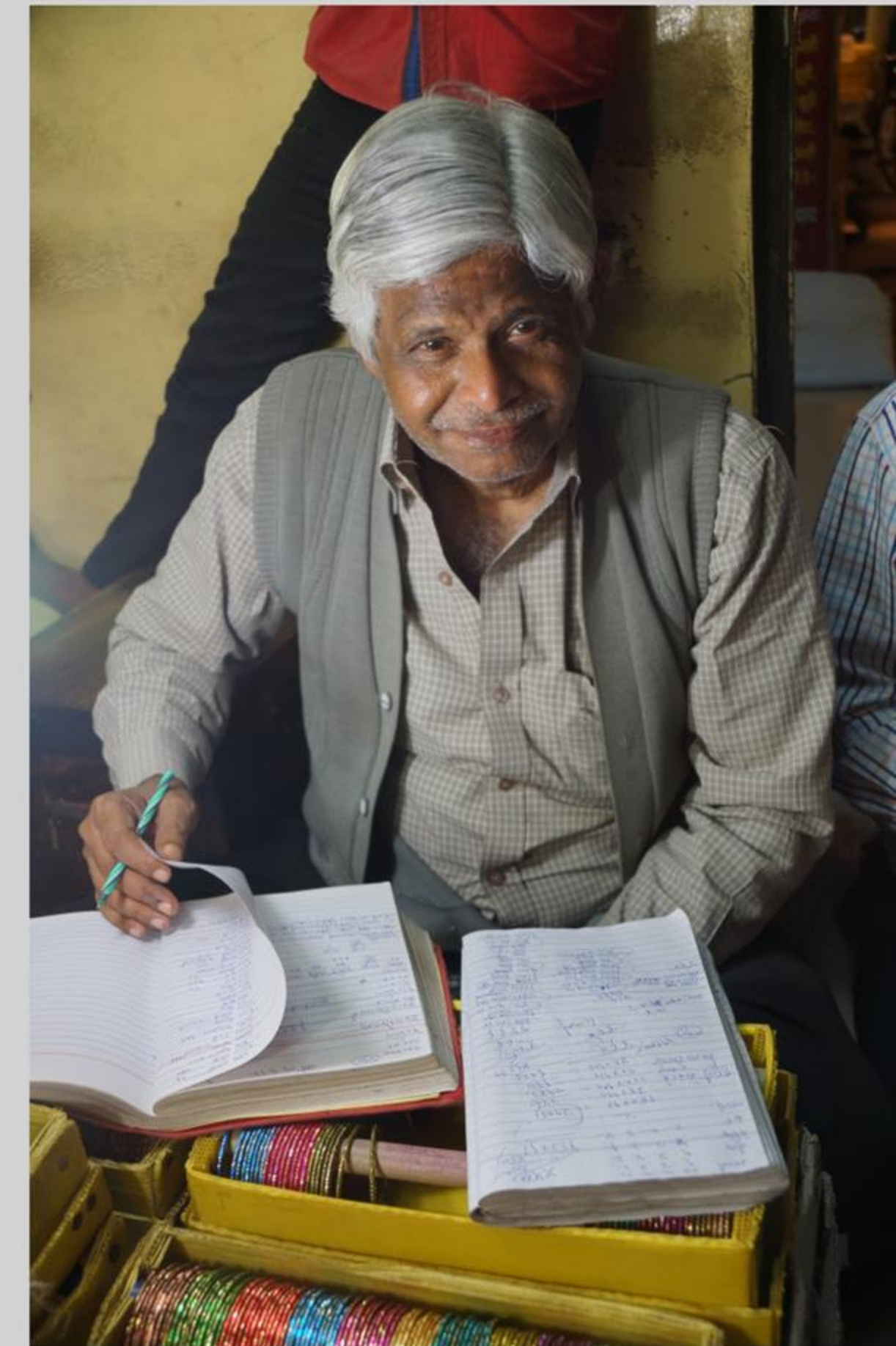


BANGLE BOX





Waiting for customers



Book keeping



Bangle deliveries are done by bicycle wheel carts



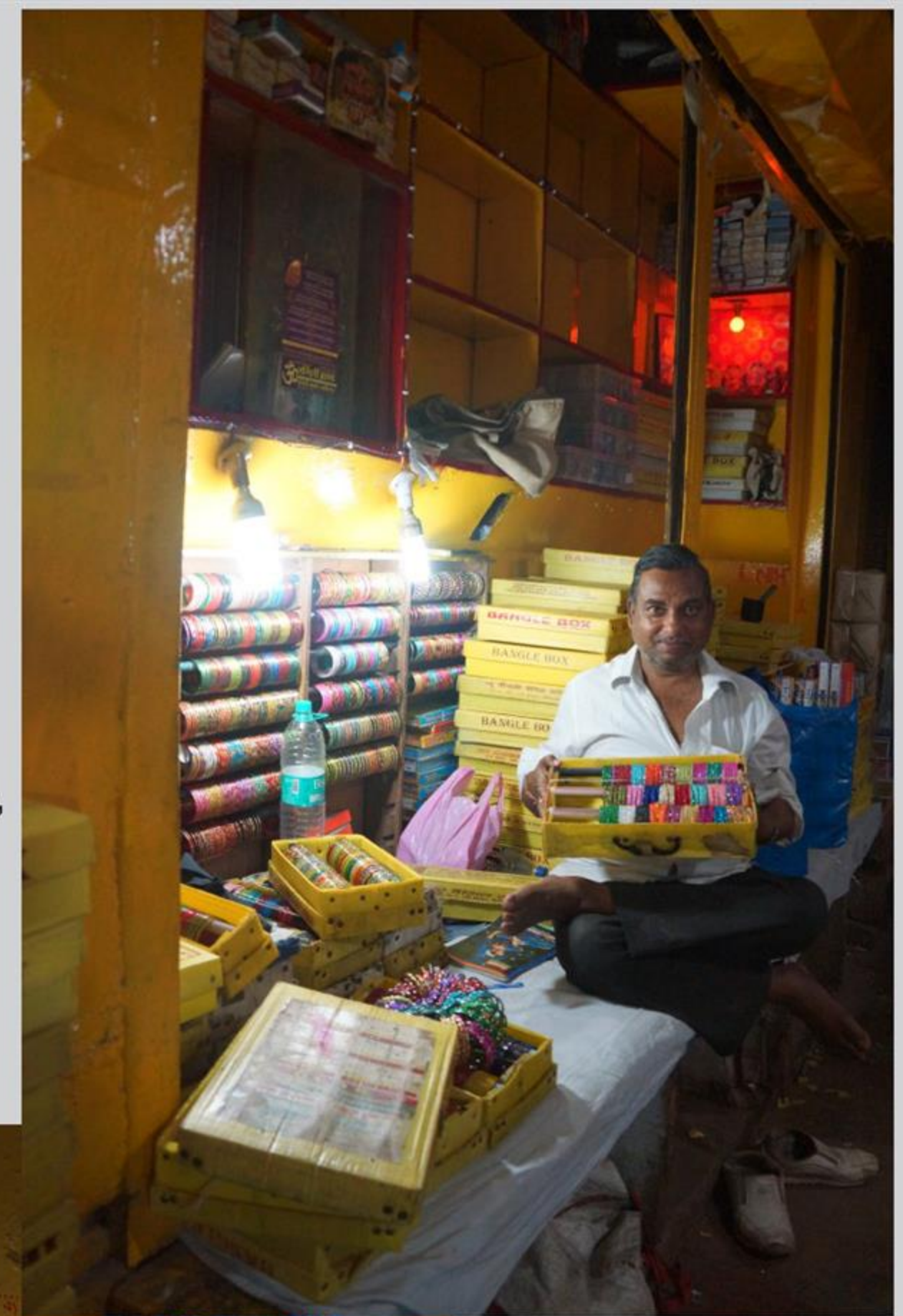
Successful sale



Boran Gali

This wholesale market for bangles also sells retail.

The story of this street is an interesting one, we were told that at one time rich people who came from distant countries lived there.







Banke Bihari Lal & co.



Banke Bihari Mandir



Beads, Firozabad, U.P. India.

Factory. J. P. glass Makhampur



Glass tubes ready
to be coloured internally





Hot melting glass.

A man with a rod pulls the glass from the boiling smelter and puts it in a trench filled with water.



Machine cuts glass tubes into strips.





Glass tubes are put through a sieve for measuring width.
Those which are too thick become stuck in the sieve and are rejected.



She cuts the strips into even lengths.



An old traditional method for colouring clear hollow tubes using suction is demonstrated here.



The tubes are cut by machine and polished in a tumbler.



Happy at work!

Washing final product.

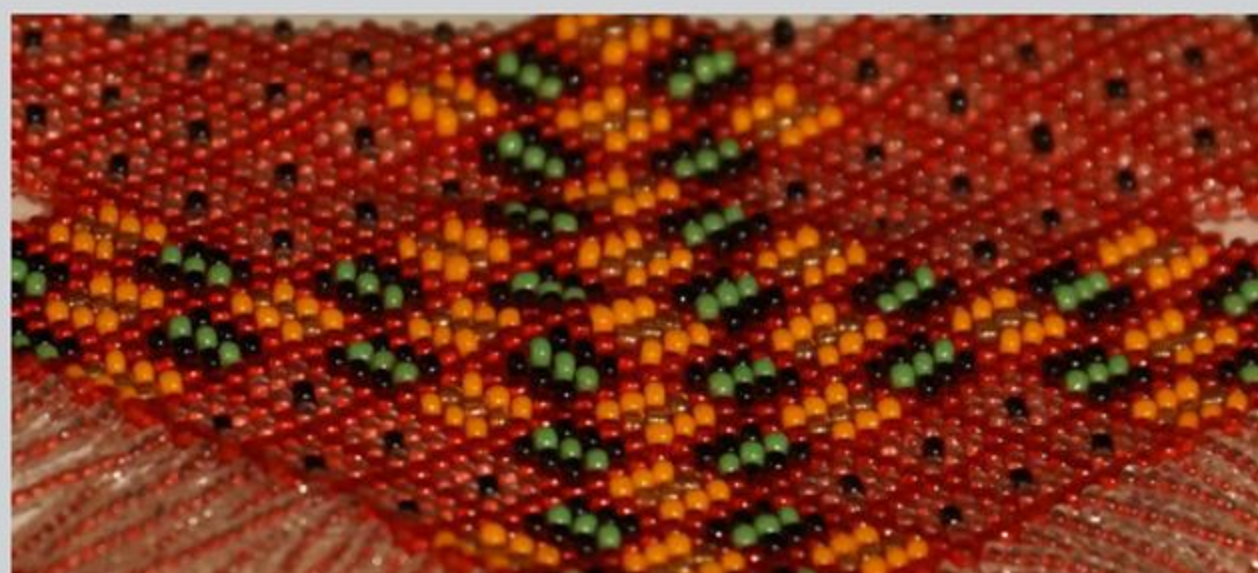




Notice the use of glitter powder in this pendant.











Firozabad

Contact persons .
Guide: Dharmendra
+91 09897847677

Mathur Glass,
(bangles):
Pawan mobile number:
0905-872-7381.

G. S. Glass
machine made beads
Makhanpur, Firozabad.

Anmol Handicrafts
wholesaler
beads/lbangles,
Chapai Gully, Firozabad
Abhishek Jain
mobile number:
0921-959-2282.