
The Question

Lamellar armor was very popular in the eastern part of the world despite flaws in the design. If the design was flawed, why was it used for such a long time?

Advantages / Disadvantages Analysis

Eastern Asians heavily focused on maneuverability in their tactics. So it's no surprise that they have stressed the importance and use of lamellar armor, because the armor is very flexible due to all the plates being separate and allows more movement than traditional plate armor. Also contributing to the maneuverability of the armor is how light it is compared to other armors. The armor is also very efficient at defending against spears, arrows and other piercing weapons. Lamellar armor was also cheap to make and easy to repair, making it very economically friendly unlike chain mail that was very expensive to make and repair and maintain. That being said, the overall design of the armor has some flaws. Because the Japanese lamellar plates have no backing and are only held together by the lacing of them, although rare, the plates can sometimes shift horizontally causing gaps in between them, leaving a sliver of room for a blade to slide through with enough force. More often than not this was not a problem, but there are still cases of it happening. This happened for multiple reasons but they all have to do with the lacing of the armor. One way it can happen is if the lacing is simply too loose, and the other way it can happen is if the armor was laced together in an odd way as there was many different lacing patterns that armies would use and no one could agree on what pattern is the most efficient. The Romans did not have this problem with their version of lamellar armor plates because they added a leather backing to the design. Despite that hiccup, lamellar armor is decent at defending against blades or other slashing weapons, but not amazing. It's when you start considering blunt weapons that lamellar armor really starts missing the mark. One thing that I've noticed while building my own lamellar armor is that there is very little protection against pure blunt force. I believe this is because the armor is flexible and forms itself around the point of impact, leaving only your body to absorb the force. I first noticed this when I asked my friend to punch me in the stomach while I was wearing the armor, and I was surprised that it hurt more than being jabbed with a pole arm/rod. I tried this experiment with two other people, they put on the armor and we thrust a rod at their chest, then we punched them in the chest and they both had the same reaction. They agreed that the blunt force of a punch hurt much more than the thrust of a pole arm, one of the participants said "The jab felt like a force that was confined to a smaller amount of surface area, while the punch felt like I took the full force of it and the surface area of the force was spread out over my body." So this realization that blunt weapons are theoretically very efficient against lamellar armor has made me wonder why they weren't the most popular weapon of choice to arm your soldiers with, because lamellar armor was by far the most used armor in the eastern world, so why were they so intent on using slashing weapons? Another thing I noticed about the armor while making it is that the entire lacing design could

have been problematic in the midst of fighting, sure it allowed flexibility in the armor but it could have compromised the integrity of the armor. It's widely known that the eastern culture favored slashing weapons (the katana, scimitar), so knowing this I believe that it's a huge possibility that while fighting, someone could cut through the lacing and undo the whole row of plates. I couldn't find any accounts of this happening but it's a hypothesis I truly believe to be possible. Looking at the materials that they would use to lace the armor it's possible that some of them could be cut with a blade, they were laced with multiple materials including; twine, leather, wire, silk, ribbon and linen cord. Most of these materials are susceptible to cutting so it's surprising to me that there are not thousands of cases where a soldier's armor just fell apart completely.

Final Thoughts

In conclusion, I believe that lamellar has some major design flaws in the strength and integrity of the armor, and it tries to make up for these weaknesses by giving the wearer maneuverability and speed. But, I think that the armies that fought against the people in this armor neglected taking advantage of the weaknesses, thus making the armor look better than it actually was on its own.
