

Terminus est--another military procurement fiasco?

The Urth list — 4 messages, 4 voices, 18 Oct 1998

<https://urth.darkrealm.vip/thread/urth/1208>

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Peter T. Cash — 18 Oct 1998, 22:29

From: "Robert Borski" <rborski at coredcs.com>

Anybody have any notions how Terminus Est came into the possession of Palaemon? The sword, after all, is no mere carnifical sword, but a valuable weapon, owing to its smithing by Jovinian (Agilus claims it's worth a villa). But Palaemon is a mere torturer and the guild itself

This brings to mind some thoughts I had on Terminus Est when I first read about it. The sword is described as having a hollowed blade, partially filled with mercury (with the rest of the space consisting of a near vacuum, I assume). Allegedly, this makes the swing really powerful while keeping down the weight of the sword, because centrifugal force causes the mercury to shift to the point end of the blade, adding mass and, therefore, momentum.

I have my doubts about whether such a sword would really work, even if we ignore the structural problems of a hollow blade (it would either be weak or very thick, I think). As you swing the blade, there is little centrifugal force being exerted at the hilt, since it's moving slowly compared to the point. Thus, by the time the mercury gets to the tip end of the blade, your swing would likely have been completed (assuming the mercury gets that far at all). On the other hand, if we assume that the mercury gets there quickly, I think it would have the effect of increasing the effort required to make the swing, since you must now accelerate the mass of the mercury along with the rest of the blade.

In any case, having the balance of the blade shifting about during combat would be very undesirable. It would make the force required to move the blade unpredictable, as would be the momentum of the blade. In other words, you might not be able to stop the swing where you want it, or move the blade quickly enough to parry. The Sergeant prefers plain steel.

So my answer to your question, Robert, is that it was military surplus. The army got rid of the thing as soon as it could, and sold it quite cheaply.

Sgt. Rock

Kevin J. Maroney — 19 Oct 1998, 12:48 · follows Peter T. Cash

At 10:29 PM 10/18/98 -0700, Robert Borski [Sgt. Rock] wrote:

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Think about the stroke involved in beheading a prisoner. The sword is raised overhead and brought down in a smooth circle. Gravity, not the centrifugal effect, is what moves the quicksilver. As the sword passes the point at which it is horizontal to the ground, the tip becomes much heavier, and gravity brings the mercury into the tip. Thus, the lichtor can raise the sword slowly and bring it down very quickly.

It would be worse in a swordfight than a standard sword, though, for all the reasons you explained:

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It's a ceremonial sword of office. Who other than the torturers would want it?

Wombat, a.k.a. Kevin Maroney kmaroney at crossover.com Kitchen Staff Supervisor, New York Review of Science Fiction <http://ebbs.english.vt.edu/olp/nyrsf/nyrsf.html>

Peter Stephenson — 20 Oct 1998, 07:58 · follows Kevin J. Maroney

"Kevin J. Maroney" wrote:

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That can't be quite right, since until it's horizontal gravity is keeping the mercury at the hilt end. Long ago I used to play with things where what I was later taught to call 'inertia' (or, in a rather supercilious physicist's tone, 'so-called centrifugal force')

--- the superciliousness was implied rather than actually expressed, you know how these things work) where a loose object would move to the end of the stick by the time I'd got it horizontal. I would contend that if that **doesn't** happen here, the mercury is moving too slowly to make it useful when cutting people's (such as supercilious physicists') heads off. The real question is the dynamics of the mercury in the groove. Also fairly long ago, I (or a brother) had a mercury maze where you rolled a ball of mercury around. I suppose that in the sword it would be ball-like, too, so it would behave better than, say, water. So maybe it would work after all. I've had doubts, but I expect Wolfe as an engineer would know better than a supercilious physicist.

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That's what gravity's for in any case. In the total process of lifting and lowering through a full cycle, only the weight counts. The theory is that the mercury gives it that last bit of oomph just where it's a going through some stiff bits of bone and gristle in someone's neck. I'd love to see this demonstrated... err, maybe not on a human.

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Yes, unless some eccentric armiger had it made because he thought it would be useful and found it wasn't. (SDI?)

I can think of one use... classical art is full of pictures of Judith about to cut off the head of Holofernes, or just after (but not usually in the middle). In particular, there's a statue by

Donatello in the Palazzo Vecchio in Florence with a particularly weedy Judith waving an overgrown dagger at the massive trunk of Holofernes' neck, and it all seems a little futile. A decent carnifex' sword would certainly help.

(There's another Judith and Holofernes by Artemisia Gentileschi, and this time it's quite clear who's got the upper hand. It's about to be very, very messy.)

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Matthew Malthouse — 28 Oct 1998, 01:09 · follows Peter Stephenson

Peter T. Cash wrote:

From: "Robert Borski" <rborski at coredcs.com>

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Feh! Are smilies in use on this list. Should there be a few here?

As best I can remember the reason given for the mercur was that in holding the blade upright the balance would be nearer the heilt making it easier to keep still while the, possibly long, ceremonial bits were going on. The weight then tips towards the end during the downstroke gifting some advantage in momentum when the blade meets the unfortunate neck.

The one problem I can see with this is Sev's description of the 'usual' manner of execution for

women, bound in a chair and with a horizontal stroke. That would be most awkward with a sword balanced towards the tip.

Apart from all that Terminus Est is explicitly an executioners blade, not a military piece at all.

Matthew