Nottingham University's Djanogly Gallery has a history of staging thought-provoking exhibitions. In 2010 it hosted “Prayer”, a sound installation by South African artist James Webb that wove a vocal tapestry from prayers recorded across the city’s multi-faith communities.

Six years on, it is the first British venue to show Macedonian-born artist Elpida Hadzi-Vasilieva’s Haruspex, the highlight of the Holy See’s Pavilion at last year’s Venice Biennale.

At the Djanogly Gallery, scaled-down versions of Haruspex and a related work, Fragility, have been combined into one installation for Hadzi-Vasilieva’s first major solo exhibition in the UK, “Making Beauty” (until 30 October). It is an appropriate title for the work of an artist whose particular genius consists in taking the dross of our throwaway society and, by patient application rather than alchemy, turning it into gold.

Without forewarning, you would be hard put to identify the raw materials that have transformed the Djanogly’s main rooms into a spiritually uplifting, nave-like space ending in a light-filled apse where a golden bulb-shape hangs on harp-like strings. The only giveaway is the faintest whiff of animal matter.

The diaphanous drapes that line the installation’s “nave” are made of pig’s caul fat – the lacy membrane protecting the digestive organs – painstakingly washed and chemically embalmed before being stretched on to transparent plastic film. The hanging bulb in the “sanctuary” is the preserved third stomach of cow – known to butchers as “the Bible” because of its many-leaved structure – and the harp-like strings holding it in position are twisted sheep gut.

Hadzi-Vasilieva first came across caul fat in a traditional French butcher’s shop in Valenciennes while researching lace-making for an artist’s residency in 2007. The parallels with lace became apparent when she took a bundle home, plunged it into water and watched the membrane blossom into nature’s dentelle.

When the call came from the Vatican to create a work for Venice responding to the phrase from St John’s Gospel, “and the word became flesh”, the choice of medium seemed God-given. It was equally suited to a commission the same year from Brighton’s Fabrica Gallery for a work inspired by the visions of light sometimes experienced at the point of death, which grew into the installation Fragility.

The Nottingham exhibition includes smaller sculptures, some resulting from recent collaborations with medical research departments specialising in regenerative treatments for digestive diseases. Among the more visceral exhibits is an audio helmet made from a cow’s “bible” in which, over a backing track of stomach gurgles, you can listen in on patients’ accounts of their symptoms intercut with specialists’ diagnoses.

Beautiful as it looks, this is not a show for the squeamish. Jewish and Muslim visitors to the “Prayer” exhibition will not, one suspects, be returning for this one, nor will it attract an audience of vegetarians. Nevertheless, it has a universal message. Brought up in the make-do-and-mend culture of communist former Yugoslavia, Hadzi-Vasilieva is painfully aware of the trail of waste Western society leaves in its wake and feels driven to give second life to our detritus.