Not many artists are bold enough to tackle the Old Masters head on, but then few are as skilled as Glenn Brown in the art of applying paint to canvas. He has made his career appropriating the work of artists as diverse as Velázquez, Fragonard, Auerbach, and Dalí, re-imagining the colour, scale and brushstrokes of their images.

Working primarily from reproductions that are not particularly accurate, Brown distorts familiar images further: the soft, young flesh of a portrait by Rembrandt is transformed through his use of acid greens and turqouise yellows into a picture as reminiscent of zombie films as the Dutch Golden Age. Old decrepit men decompose before our eyes in works that “struggle between beauty and ugliness”, in the artist’s words.

Brown confounds our expectations in other ways too, building up his figures through what appears at first to be vigorous impasto but is in fact enamel-smooth trompe l’oeil rendering, an examination of perception and illusion that few of his contemporaries could master.

But the artist, who says he spent much of his time at Norwich School of Art in life-drawing classes, says technical ability will only get you so far: “What’s more important is that you learn how to look and learn how to question things.”

It all began, he says, with a deep love for painting at a time when it was unfashionable. “When I went to Goldsmith’s [where he studied] there was a very definite sense that painting was in crisis... and those of us who pursued it were parading ourselves to the outskirts of art. To make the decision to paint was borne out of pure love of what I’d seen [painting] do and the emotions I got from it compared with other conceptual forms of making art.”

Brown, who collects “interesting” works by the likes of Henri Fantin-Latour and the Dutch 17th-century painter Elias Vanck, has little time for prevailing hierarchies in the art world, describing artists such as Dalí, as “massively under-rated”. “I would very happily put Dalí next to Rembrandt in terms of the quality of the work,” he says.

“I made a painting called Oscillate Wildly, 1999, which was based on Dalí’s Autumnal Cannibalism, 1936. I scaled it up, changed the palette, elongated it, and made it the same proportions as Picasso’s Guernica, 1937. One of the things I wanted to do conceptually was to suggest that Autumnal Cannibalism, which is about the Spanish Civil War is every bit as important as Guernica. It is, I think, a better painting.”

Brown says that as he has got older, he has become progressively more “anxious” about “standing up against great artists like Rubens, Picasso, and Rembrandt”. “When I was starting out, youthful exuberance certainly got the better of [me]: lack of knowledge makes you feel as if you could do anything... age and experience make you more cautious and you have to battle that and remember to forget [other] paintings.”

He describes himself as nervous at the prospect of his work being shown alongside paintings by El Greco and Brueghel at Upton House in Warwickshire, home to the collection of oil magnate Walter Samuel, which is hosting an exhibition of Brown’s work for the next three months until 6 January 2013.

“The idea that someone will look at a painting by Hieronymus Bosch and then look at mine and think, ‘Oh dear, is this the best the 20th century can do?’ scares me. But based on what other people tell me... I think it might be OK.”