He graduated from art school second only to David Hockney then gave up on the British art scene. Frank Bowling on pigeonholes prejudice and waiting for that really big show.

Last February, the painter Frank Bowling turned 78. It turns out he almost didn’t make it. When he moved from London to New York in 1967 – because New York, he says, was “the frontline of artistic aspiration” – he narrowly escaped being knifed by another artist. “He followed me home after an argument; the woman I was with just managed to push me out of the way before the blade cut open my greatcoat.” Bowling smiles wryly. He is sitting in a corner of his flat in Pimlico, central London, jaunty in green braces; the walls teem with the Technicolor daubs and drips of his abstract paintings. “I’m sure it wasn’t the first time human beings have come to blows over culture. There were lots of fights.”

When Bowling left the Royal College of Art in 1962, he was hailed as a leading talent in an exceptional year, one that included RB Kitaj and David Hockney. At their graduation, Bowling won the silver medal to Hockney’s gold (and was thought by some to have deserved the higher accolade).

Several exhibitions followed, but he was soon eclipsed by his former classmates; the move to New York was born partly out of frustration at being pigeonholed as a “Caribbean artist”.

“It seemed that everyone was expecting me to paint some kind of protest art out of postcolonial discussion. For a while I fell for it. I painted a picture called the Martyrdom of [Congolese independence leader] Patrice Lumumba.” In New York, he moved away from these figurative paintings to the abstract approach that would define his art for the next four decades (“because,” he says, “it isn’t hidebound by colour or race”). And what a lot of art there is: the gallery on Bowling’s website contains more than 750 paintings. At Tate Britain in London, you can currently see 15 of them: huge fluorescent canvases dominating a white-walled room, all of them produced in New York in the 1970s, in the space of just five years. Another recent series of eight paintings is on display at London’s Hales Gallery.

The Tate show is a landmark for Bowling, who moved to London from Guyana in 1953, aged 19. He hasn’t exactly been ignored here: in 1987, the Tate bought his painting
Spreadout Ron Kitaj (a vast stippled canvas in the reddish colours of dying embers), the first painting the gallery had purchased from a living black British artist. He has had solo shows on both sides of the Atlantic, and in 2005 became the first black British artist to be elected to the Royal Academy; an OBE followed.

But, to his evident chagrin, the Tate has never given him a major retrospective. He and his partner Rachel Scott – a textile artist and prodigious knitter who sits quietly in the opposite corner of the room as we talk – hope to change that. Bowling says: “We’ve been trying – not just me personally, but my friends, to talk the Tate into giving me a retrospective. They say they can’t, because we can’t guarantee 80,000 pairs of feet crossing the threshold. My friends think they can; so this show is a sort of compromise.” (When I put this to the Tate, a spokeswoman confirms that there are no plans for a retrospective, but denies this is because the gallery is worried about potential footfall.)

Bowling was close to Hockney while at the Royal College: the two artists would go drinking together, and then fast (“for two weeks, we ate only apples and oranges and the odd bowl of rice”). They remain friends. Lucian Freud was another early mentor. “He’d go out of his way to encourage me,” Bowling says. “He’d often drop by – but that didn’t last much past the time I stopped doing figurative painting.”

Perhaps his most significant friendship was with the late American pop artist Larry Rivers. It was Rivers who pressed Bowling to move to New York (where he continues to spend half the year, working in a studio under the Manhattan Bridge). “Larry was one of the first artists who was able to trade his art for a Cadillac,” Bowling says. “He paid his doctors, his psychiatrist, everybody, by giving them art. It was marvellous. I ate in a restaurant for years without having to pay – the [owner] got three of my paintings.”

Bowling remains frustrated by the fact that few young black British artists are achieving mainstream success today – but believes this is down to class and money rather than overt prejudice. “There’s a handful of young black artists who are coming up,” he says. “But the support system just isn’t here. In New York, people are looking for younger artists to promote. The fact that so few of the population, who also happen to be black, want to make art – it’s a double bind. Traditionally, black people aren’t encouraged to make art: you get a decent job. Even the sons of doctors, lawyers and stockbrokers are discouraged from going into making art as a way of living.”

Despite his increasing frailty (he has diabetes and chronic back pain, and needs help to get to the furthest parts of his canvases), Bowling still paints every day. Naturally, he is pleased by the recent resurgence of interest: six exhibitions so far this year, while the Royal Academy has just published a monograph of his work. “It feels,” he says, “just like the first five years I spent in New York – the working, and writing, and toing and froing from London. I’ve never felt this interest in my work quite as intensely.” And he gives the broad smile of an artist very happy to be rediscovered.

Frank Bowling’s Poured Paintings 1973-1978 is at Tate Britain, London SW1, until 31 March 2013. Frank Bowling: Recent Large Works is at the Hales Gallery, London E1, extended to 27th July 2012