Archimedes' bathtub

Nicholas Spratt

A falling apple is supposed to have inspired Newton's theory of universal gravitation, a simple chance observation in his back garden that helped, even in a small way, to shape the way we understand our place in the cosmos. The story was perhaps invented by Newton himself so that he could claim his very own eureka moment, but whether or not it truly is the origin of his theory, the falling apple has come to be a simple yet powerful illustration of his thinking. So potent is the story that now, over 300 years later, a number of gardens claim to have the actual tree that dropped Newton's apple, while the Brogdale National Fruit Collection in the United Kingdom holding the license to sell grafts of one of these Newton trees—which it curiously describes as 'a very shy cropper.' Does it make any difference to our understanding of the world to see the original tree or watch one of its apples fall for ourselves? Not really, but an artefact like this develops an important gravitational pull of its own—a sense that we are being pulled closer to the essence of things. Perhaps though, the apple tree also serves as a gentle reminder that we can never really know what happened for Newton that day in the garden, no matter how close we stand to it. So much of a research process tends to go unseen, and even then there are parts of that process that are impossible to document, or are best kept unsaid. In ways that might not be possible for a thesis or a paper, an object that symbolises as much as Newton's apple tree might also imbue a sense of mystery—stories might be grafted on to it, but the simple silence of the tree itself can be a reflection of the quieter moments that helped contribute to this new knowledge.

Some popular versions of Newton's story have him sitting beneath an apple tree before the fruit of knowledge came crashing down upon his head, though other more credible stories have him seeing the apple fall from afar—one of his assistants, John Conduitt, described Newton as 'pensively meandering in a garden,' while some other versions of the tale have him sitting in his home of Woolsthorpe Manor, gazing out a window, deep in thought. Each of these variations though, foster the romantic idea that a sudden, often unpredictable moment of inspiration and clarity might arise from a period of uncertainty, from a cloud of confusion or even plain aimlessness. Was Newton really thinking about gravitational matters at the time that the apple fell? Perhaps he could have simply been daydreaming as he looked out his window. While a single falling apple represents that moment of realization, let's not forget the time and energy, the struggle and distraction that surrounded this event. And though the falling apple might remind us how important acts of observation are

to understanding, it might also be seen to champion the need to take time out, to sit by a window or under a tree and watch the world go by for a while—to let that moment of clarity arrive when it is ready, because sometime you can't force these things to happen.

I heard a great interview once that touched on the importance of inefficiency and time-wasting to the work process—two writers talking about the habits and rituals that they'd developed to help fool themselves into feeling busy, and how vital procrastination could be in the day-to-day business of writing. Checking the phone for messages that are never there; allowing paper to pile up so that it looks like more work had been done; elaborate ways of making the space ready to work in. Perhaps I enjoyed the interview even more because I was also doing very little at the time – listening to the radio one afternoon during the summer break, casually listening along and feeling slightly smarter as the day sauntered by, knowing that I had the time and the space to engage with the things being said because the day was mine to waste. I was so caught up in this celebration of inertia that I completely neglected to make a note of who they were, or where the interview had come from. It was good to hear other people telling these stories about a part of the working process that does not normally get revealed, tales of those unique quirks that punctuate our work habits and a reminder that good things often need the right amount of time and space to develop.

The major problem with the story of Newton and his apple is that it creates an overly simplified illustration to his argument, to a degree where it might even undermine the actual thesis. The story is so easily told and so readily understood that it tends to overshadow the rest of his argument. Sometimes an illustration to a theory, or an artefact from its process, might resound more with us if we are forced to spend time with it, to work out what it means for ourselves. It is the same kind of engagement that is demanded by good artworks. As a viewer in a gallery, or as an artist or researcher with their work, this room to be still and think is crucial. Looking at a single artefact, or hearing the story of an old apple, are just the beginning. In a world where so much value is put upon deadlines and on maximizing efficiencies, when time is seen as such a precious commodity, it is encouraging to know that there some areas of life that are still given the space to slowly develop and expand. We don't know what the answer or the outcome is, but we'll get there in the end.

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