



Pablo Picasso,
Les Femmes d'Alger (O Version O)
 1907, oil on canvas, 244 x 234 cm
 Museum of Modern Art, New York.
 Source:
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The Creative Essence of Cultural Innovation

Igor Stravinsky portrait, Author: Pablo Picasso
In: *Programme officiel des Ballets russes de Serge de Diaghilew : quatorzième saison, Théâtre de la Gaîté-Lyrique, mai 1921* / [texte de Jean Bernier]. Paris: Théâtre de la Gaîté-Lyrique.
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The music historian Donald Jay Grout wrote that Igor Stravinsky's *Rite of Spring* "had the effect of an explosion that so scattered the elements of musical language that they could never again be put together as before"¹. Thomas Kelly added that its legendary premiere in 1913 could be considered "the most important single moment in the history of 20th century music"².

Of Picasso's revolutionary painting *Les Femmes d'Alger*, critic John Richardson wrote that it "is the first unequivocally 20th- century masterpiece, a principal detonator of the modern movement, the cornerstone of 20th- century art"³.

When John C. Mosher of *The New Yorker* saw Orson Welles's *Citizen Kane*, regularly voted by critics as the greatest film ever made, he declared rapturously that "Something new has come to the movie world at last"⁴.

Writing in *The Guardian* in 2014, Robert McCrum remarked that "1922 is one of those extraordinary years in the history of English literature ... after which nothing would ever be the same again ... Today, novelists writing a hundred years after the composition of *Ulysses* still write in the shadow of this extraordinary achievement. Occasionally, it is said that English-language fiction since 1922 has been a series of footnotes to [James] Joyce's masterpiece"⁵.

We all stand in awe of the new, something never heard or seen before, for which nobody was prepared – something that springs fully formed from the mind of its creator, sweeping away all that came before. Whether it be in music, art, cinema, or literature, this extraordinary creative act is the very essence of cultural innovation.

Or is it?



Make it new!

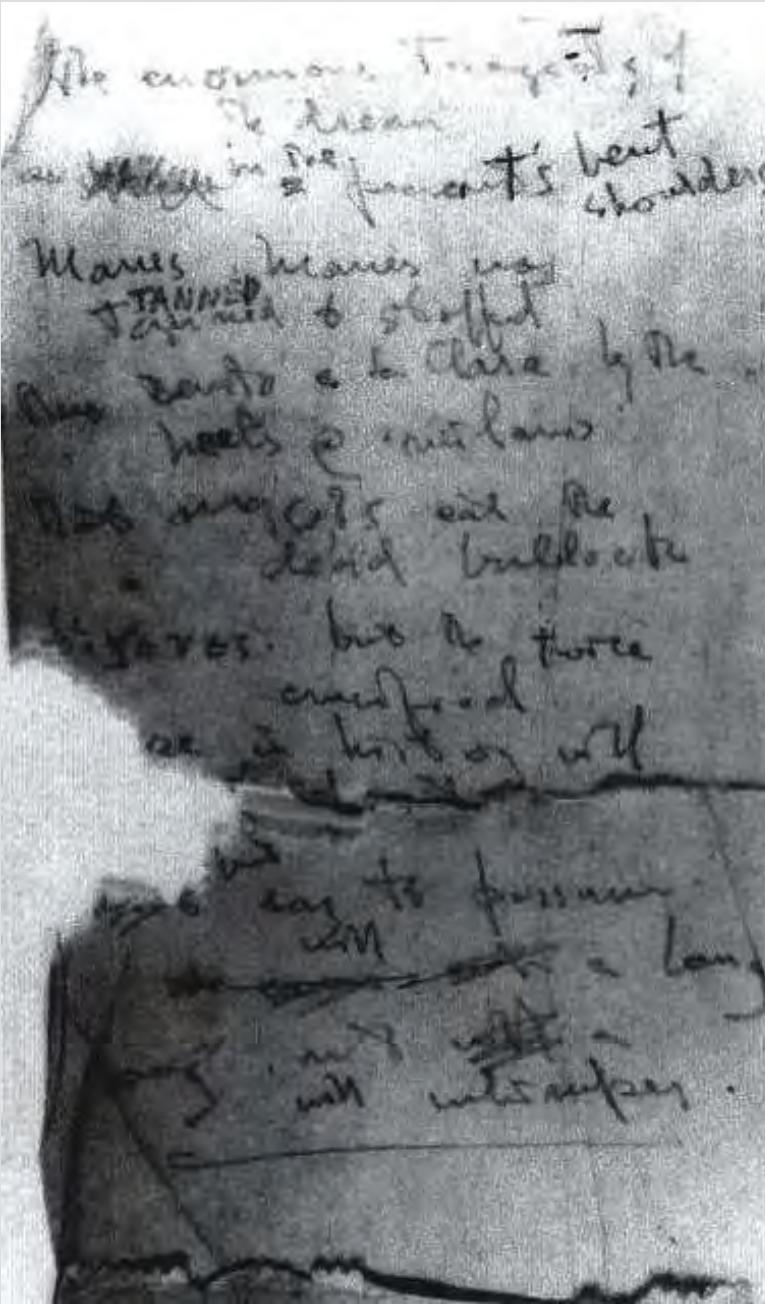
The myth of the spontaneous creation of the new out of nothing is dear to us all. It inspires wonder and excitement. It makes us feel important, witnesses to something epochal. Thus we are all complicit in keeping the myth alive. But it is counter-productive to propagate a myth, especially when the truth of how the creative act really works is equally wondrous. It is captured in a single line from the Bible, that we all instinctively know is true: “There is nothing new under the sun”.

Let us start with Picasso, who said “Good artists copy; great artists steal”. Who did Picasso steal from? Anybody and anything, past or present. John Robinson: “For all that the *Demoiselles* is rooted in Picasso’s past, not to speak of such precursors as the Iron Age Iberians, El Greco, Gauguin and Cézanne, it is essentially a beginning: the most innovative painting since Giotto”. Note how stealing (from the past, from contemporaries, from other art forms) is mentioned in the same breath with innovation, which might seem at first glance to be its opposite.

David Bordwell noted that the many cinematic techniques considered to be new in *Citizen Kane* had in fact been used earlier (such as in the German Expressionist films), but that Welles had been the first to combine them together in a single film in a powerful and innovative way⁶.

The legendary American director David W. Griffith (*The Birth of a Nation*) put it another way “I loved *Citizen Kane* and particularly loved the ideas he took from me”⁷. There again we see the concepts “steal – combine – innovation”.

Even Ezra Pound who famously coined “Make it New!” as the slogan of modernism, really meant combining and blending existing cul-



Ezra Pound, Canto LXXXIV, c. May 1945, manuscript on a sheet of toilet paper showing start of “The Pisan Cantos”, suggesting Pound may have begun it in the steel cage in Pisa.
Source: https://en.wikipedia.org/wiki/File:Toilet_paper,_Pisan_Cantos.JPG



Thomas Alva Edison (1847-1931)
seated in plant or workshop
Photo by Irving Underhill, New York.c1905 Oct. 16
Source: Library of Congress

tural influences. As *The New Yorker* noted, “The ‘It’ in ‘Make It New’ is the Old—what is valuable in the culture of the past”⁸. In *The Rite of Spring* Stravinsky explicitly acknowledged at least one melody derived from an anthology of Lithuanian folk songs, and several other such re-elaborated melodies have since been identified in the work, from both the Lithuanian and Russian traditions⁹. And of course, James Joyce’s *Ulysses* is famous not just for its stream of consciousness prose, but for its combination of an astonishing 33 different existing styles of writing within a single novel.

The lesson of these observations that the true creative essence of cultural innovation is not product the new from nothing in a kind of spontaneous generation, but rather producing a new combination of pre-existing cultural artefacts. Nor does the physical environment necessarily play a large role; Ezra Pound wrote some of his most compelling poetry in a prison in Pisa. Rather, it is primarily a phenomenon of the mind, as we will see.

The phenomenon isn’t confined to art, either. The inventor Thomas Edison is said to have remarked, “Everyone steals in industry and commerce. I’ve stolen a lot myself. The thing is to know how to steal”. Steve Jobs, the innovator *par excellence* of the digital age, loved to say, “We have always been shameless about stealing great ideas”¹⁰.

The origins of innovative ideas

The principle of recombining existing artefacts in new ways to produce innovation has found support in recent research into how innovative ideas are formed in the mind. Given the importance associated with innovation for economic and social advancement today, so-called “innovation methods” have flourished in all areas of endeavour, ranging from science to commerce to design. These methods try to provide guidance in the management of creative ideas and their transformation into products. Tellingly, however, these methods invariably do not ask the most basic question of all: where do these creative ideas come from in the first place?

Seeking a better understanding of how innovative ideas arise in the mind, Professor William Duggan of Columbia University looked into the research of the past decades, beginning with the research of Roger Sperry in the 1960s. Sperry studied patients whose brains had been split – that is, the connection between the left and right-hand sides had been severed. Sperry discovered that

the two sides of the brain were still able to function independently¹¹. This observation eventually led to the rise of a popular notion of two different kinds of thinking, each regulated by a different side of the brain. The usual formulation indicates the left side of the brain as governing creative activity, while the right side governs more analytic activity. A “left-dominant” person is creative and intuitive, like an artist, while a “right-dominant” person is more sober, like the proverbial accountant. This idea became the backbone of many approaches both in cultural and business activities¹². However, it led to the impression that intuitive and analytical thought were distinct from each other – or worse, at odds with each other. Subsequent research in neuroscience effectively dismantled the notion of two separate centres of thought in the brain, but a new model was not forthcoming until more than thirty years after Sperry’s original research.

A new model of *learning and memory*¹³ was provided in the late 1990s, by Eric Kandel and his colleagues who determined that both intuitive and analytical activity were important factors in absorbing knowledge, and even more importantly, in retrieving memories to solve problems. According to this new model, when the mind is presented with a problem, it breaks the problem down into its elements and searches through memory for solutions to those elements. Furthermore, the mind does this in one of two ways. The first involves the very rapid retrieval of memories that are instantly recognized as solutions, and is generally known today as *expert intuition*. The works of Daniel Kahneman in particular have popularized expert intuition today¹⁴.

Kandel identified a second type of intuition, which scans the recesses of the mind much more deeply and broadly, retrieving not only one’s own experiences, but also those of others that, for example, we might have heard about or studied at some point. This is a much slower kind of intuition, analogous to Kahneman’s “slow thinking”, and does not happen when the mind is under pressure (as in expert intuition). Rather, it tends to happen at times in which the mind is relaxed, such as when walking or taking a shower. Memories retrieved in this manner are then recombined by the mind in new and unfamiliar ways, through “flashes of insight”, to produce a solution to the problem.

Duggan realized that innovative thinking must involve this second type of intuition, since expert intuition by definition only retrieves one’s own experiences in familiar ways. Calling it “strategic intuition”, he elaborated an approach to innovation around it¹⁵. This approach effectively involves mimicking the natural processes underlying innovative thought. An innovation problem is first broken down into its elements; then an explicit search is performed for precedents in history – anywhere, at any time, from the remote past up to the present – that may have provided a solution to an element of the problem. In this way, the natural way in which the mind arrives at innovative ideas is amplified through the explicit addition of external and unfamiliar experience to draw from, and the conditions for innovation to occur are established – much in the way that oyster farming mimics the natural conditions that allow valuable pearls to be produced. To be sure, that final act of creative combination, that flash of insight, is by no means assured, but it was ever thus, and can happen in no other way. Thomas Kuhn, while discussing his famous paradigm shifts, spoke of “the ‘lightning flash’ that inundates a previously obscure puzzle, enabling its components to be seen in a new way that for the first time permits its solution”¹⁶.



Cultural preservation as a source of innovation

The concept of strategic intuition – the act of combining one’s own experience and that of others in new and unfamiliar ways – as the foundational activity underlying innovation brings a whole new perspective to projects like Europeana. Whereas in its narrowest form, the mission of Europeana is to preserve and protect the artefacts of our culture, its potential goes far beyond this static and conservative view. Rather, the very act of cultural preservation and dissemination plays an active role in the promotion of cultural innovation.

To see this, consider the key step in Duggan’s approach to innovation, the deliberate search for precedents from history that could provide solutions to elements of a problem. Let us take an example from the theatre. Not that long ago, theatre managers were confronted with a problem of declining audiences. Some sort of innovation in the way that theatre was managed and presented was needed. In a rapid appraisal of the problem, they determined that one element of the problem was to find a way to bring “common people” into the audience; heretofore, audiences had come mostly from the privileged classes. When looking into precedents from history, they came upon the concept of “a place where the normal populace congregates”, such as the agora of Ancient Greece or working-class factories. This insight gave rise to the practice, common today, of staging productions not in formal theatres but in alternative settings such as converted factories, lofts, and public squares. Theatre attendance surged with the introduction of this innovation in theatre presentation.

The farther afield the cultural artefacts are in the search for historical precedents, the more astonishing the innovation can be. The musical composition *Ballet Mécanique* of George Antheil, with its sixteen synchronized player pianos, became one of the elements of the technical innovation that produced *spread spectrum* technology, the basis of today’s communications protocols such as Bluetooth¹⁷.

As this last example reminds us, cultural artefacts can play an important role not only in purely cultural innovation, but also in innovation in all its manifestations in our society. Steve Jobs often credited the great design innovations of Apple products to the insights he gained from his studies of calligraphy as a young man. Walter Isaacson wrote in his biography¹⁸ of Jobs that “He connected the humanities to the sciences, creativity to technology, arts to engineering ... no one else in our era could better [connect] poetry and processors in a way that jolted innovation”.

This sentiment was echoed in these very pages in the 3/4 issue of *Uncommon Culture*, in which Neelie Kroes, the Vice President of the European Commission, reminded us that “cultural material can contribute to innovation... and become the driver of new development”.

For cultural material to contribute to innovation, however, it must be preserved; it must be made accessible; it must be searchable, comprehensible, revealing. It must be available to those making their searches for precedents while seeking innovative solutions to their problems in all walks of life. Only in this way can it be recombined with all the astonishing power of our strategic intuition to help produce those pearls, the innovations of tomorrow.

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Orson Welles as Charles Foster Kane, Photograph for the movie *Citizen Kane*, 1941

Source: by Cropbot

https://commons.wikimedia.org/wiki/File:Orson_Welles-Citizen_Kane1.jpg#/media/File:Orson_Welles-Citizen_Kane1.jpg

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One of the first examples of the iPad,
with the Apple logo of Steve Jobs
Photo by John Favaro
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