

# ART MACHINES 藝術機器

#### INTRODUCTION 簡介

The history of artmaking and the history of tools and technology are inextricably linked because technology makes possible what can be artistically expressed. If there is one idea that the visitor should take away from Art Machines, it is that technology is not an impediment to the making of art but a condition of its possibility. Indeed, the history of modern art is the history of the collaboration between artists and engineers. The proliferation of new technologies, above all the computer, has afforded an ever-widening repertoire of material and symbolic forms from which art can be created. What makes something a work of art is not that it is handmade or machine-made, but the maker's intentions that inform its creation. An artwork's value lies in the success and coherence with which these intentions are communicated through the materials, bestowing upon the work its unique value.

藝術創作的歷史以及藝術工具和材料的歷史,兩者之間有著千絲萬縷的 聯繫,因為科技為藝術表達帶來了更多可能性。我們期望通過本次展覽「藝術機器」向你闡明:科技並非藝術創作的絆腳石,而是成就其誕生的條件。誠然,現代藝術的歷史正是藝術家與工程師攜手協作的歷史。電腦等新科技的廣泛普及,為藝術創作提供了愈發豐富的物料和符號形式。藝術品之所以為藝術品,不在於是人手抑或機器製作,而是創作背後的意圖。如果這些意圖能透過製作物料成功地傳達出來,以及賦予作品獨特的意義,兩者之間能成功地貫徹始終,便是作品的價值所在。



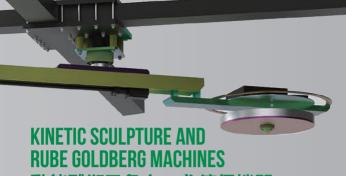


# MODERNISM AND MACHINE AESTHETICS 現代主義及機器美學

By the first decades of the 20th century, machines had become domesticated in the form of bicycles, sewing machines, radios, gramophones, vacuum cleaners, toasters, automobiles, electric lighting, while trams, elevated railways, seaport cranes and subway trains were part and parcel of everyday urban experience. Meanwhile, the change brought by Modernism in art was profound and unprecedented: across Europe and then the United States, artists sought radically new ways of making art that were a direct response to the changes in society wrought by industrial modernity and the machine. After World War I, the new aesthetic of the machine ranged from optimism to ambivalence.

二十世紀初的數十年間,單車、缝紉機、收音機、留聲機、吸 塵機、多士爐、汽車、電燈等機器以家居用品的形式進入家 庭;電車、高架鐵路、海港起重機及地下鐵路更成為了都市生 活必不可少的日常經驗。現代主義帶來的改變空前絕後,歐陸 以至美國的藝術家紛紛尋索破格的創作新法,直接應對工業現 代化及機器帶來的社會變革。第一次世界大戰之後,機器的新 美學從樂觀主義到矛盾模糊皆有之。





## 動能雕塑及魯布・戈德堡機器

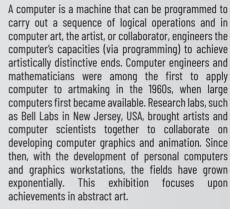
The beauty of the machine is most visible when its parts are seen in motion, which is precisely what early-20th-century artists tried to do in painting, sculpture, and film. This idea, however, can only be fully realized when art itself becomes a mechanical device. This kind of machine art can be described as kinetic art—art that embodies movement. Kinetic artworks may have mechanical parts or not (mobiles), may be run by a motor or a computer, and may respond to external, environmental prompts.

The impact of the machine on everyday life also prompted wonderful popular art, such as the whimsical machine drawings of the British illustrator William Heath Robinson (1872-1944), and his American counterpart, Rube Goldberg (1883-1970). Their fantastical, complicated, improbable machines were designed to fulfil the most unlikely of tasks and their ridiculously funny inventions lived on in the movies. More recently, prompted by the internet, these pointless and engaging inventions have proliferated in ever widely ramifying forms.

機器的組件運轉時最能彰顯其美,正是二十世紀初藝術家嘗試透過繪畫、雕塑及電影所呈現出來的,然而直至藝術自身成為一種機械裝置,才完整地呈現出這種美。這種機器藝術亦作動能藝術,即為展現動態的藝術。動能藝術作品可能配備機械組件(動態),可能由馬達或電腦驅動,亦可能回應外在環境的提示。

機器對日常生活的影響亦帶來了精彩的流行藝術,例如英國插畫家威廉·希斯·羅賓遜(William Heath Robinson·1872—1944)以及其美國的同道魯布·戈德堡(Rube Goldberg,1883—1970)筆下天馬行空、奇幻複雜的機器繪畫,那些機器幾乎無從實現,是為了最不可能的任務而設計的。他們奇趣搞怪的發明,在電影世界中持續展現。最近在互聯網的推波助瀾下,這些毫無意義又引人入勝的發明,亦如雨後春筍般不斷發揚光大。

## COMPUTER GRAPHICS AND ANIMATION 電腦圖像與動畫





電腦就是根據指示或程式進行邏輯運算的機器,藝術家或協作者發揮電腦特性而達致優秀藝術效果,是為電腦藝術。六十年代,當大型電腦首度面世,電腦工程師及數學家是首批運用電腦進行藝術創作的人。研究實驗室如美國新澤西洲的貝爾實驗室,組織藝術家與電腦科學家協作發展電腦圖像及動畫,從此,隨著個人電腦及圖形工作站的發展,這個範疇迅速增長。今次展覽聚焦於抽象藝術的成果展示。

# COMPUTER INSTALLATION ART 電腦裝置藝術



The idea of computer art is not just any art that is made on a computer, like a poem written in Word; rather, it is art in which a computer's capacities are exploited for achieving artistically distinctive ends. Some computer art is "generative," that is, once programmed with a model, the computer continues indefinitely to create new patterns or forms of that model. Other computer art is "interactive," where it is not only the artist, but the visitor, too, who through their own actions, helps determine the shape of the final output. Interactive artworks can take on many different forms, but they share the ability, which in computer art is automated, to adjust and respond to the viewer's actions. In an era when computers can now automatically "recognize" and encode information about human agents, many computer artworks explore the process of seeing and being seen.

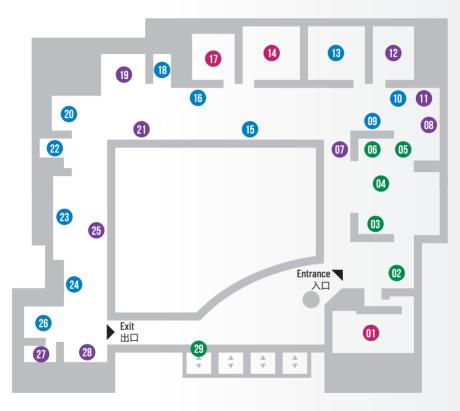
所謂電腦藝術,指的並非任何運用電腦創作而成的作品,例如在電腦上書寫的詩歌,而是發揮電腦特性而達致優秀藝術效果。有些電腦藝術為「衍生性」,經電腦程式某個模型後,電腦可持續無限地生成那個模型的新圖案或形式;其他電腦藝術為「互動性」,不單通過藝術家的行動,亦通過觀眾的行動從而決定最終成果的模樣。互動藝術可以有許多不同形式,共通之處是作品會因應觀者的一舉一動而調節和反應,在電腦藝術的世界中自動進行。在這個電腦能夠自動辨識解碼有關人類主體訊息的世代,不少電腦藝術作品探討這個觀看與被觀看的過程。

### SOUND ART 聲音藝術

Sound art is concerned with challenging how sound has been traditionally organized into music and performed in the concert hall. Sound artists, for instance, often undermine assumptions about the distinction between music and noise, utilizing the full range of available sounds in their practice. The sounds in their artwork may be recorded or they may be created (electronic sounds), and the computer allows the full integration and manipulation of recorded and created sounds. Sound art can be sculptural in form, emanating from a particular object, or it can be architectural or environmental, exploring the relationship between sound and space.

聲音藝術旨在挑戰聲音如何在傳統編曲手法下成為音樂,並在音樂廳中演奏,聲音藝術家常常要打破音樂與噪音的預設分野,用盡所有可利用的聲音來創作。他們的藝術作品中的聲音可以是錄製的,亦可以是創作而成的(電子聲響),而電腦則讓他們結合或把玩這些錄製得來及創作而成的聲音。聲音藝術能夠以雕塑形式呈現,通過特定物件顯現,亦可與建築或環境相關,探索聲音與空間的關係。





- KINETIC SCULPTURE AND RUBE GOLDBERG MACHINES 動能雕塑及魯布·戈德堡機器
- COMPUTER INSTALLATION ART 電腦裝置藝術

- COMPUTER GRAPHICS AND ANIMATION 電腦圖像與動畫
- SOUND ART 聲音藝術