



APA/Wien Museum/Kollektiv Fischka/Kramar mit Sabine Wolf

Figure 1. Virgilkapelle (left), Wallpainting of a face (right)

## Studio Heat Takes Time

### Notes on Research / Literature

#### Poetics of Space, Gaston Bachelard

Bachelard uses phenomenology to analyse spaces and the environment around the subject and their role on the persona. In the part, Introduction, he quotes C.G. Jung to discuss references focusing on the space in psychoanalysis and psychology.

“We have to describe and to explain a building **the upper story** of which was erected in **the nineteenth century**; **the ground-floor** dates from **the sixteenth century**, and a careful examination of the masonry discloses the fact that it was reconstructed from a dwelling-tower of **the eleventh century**. In **the cellar** we discover **Roman foundation walls**, and **under the cellar** a **filled-in cave**, in the floor of which stone tools are found and remnants of glacial fauna in the layers below. That would be a sort of **picture of our mental structure**.”[...] With the help of this tool, can we not find within ourselves, while dreaming in our own modest homes, the consolations of the cave? Are the towers of our souls razed for all time? Are we to remain, to quote Gerard de Nerval’s famous line, beings whose „towers have been destroyed“? **Not only our memories, but the things we have forgotten are „housed.“** Our soul is an abode. And **by remembering „houses“ and „rooms,“ we learn to „abide“ within ourselves.** Now everything becomes clear, the house images move in both directions: **they are in us as much as we are in them [...]**” (Bachelard, 1969, xxxvi)

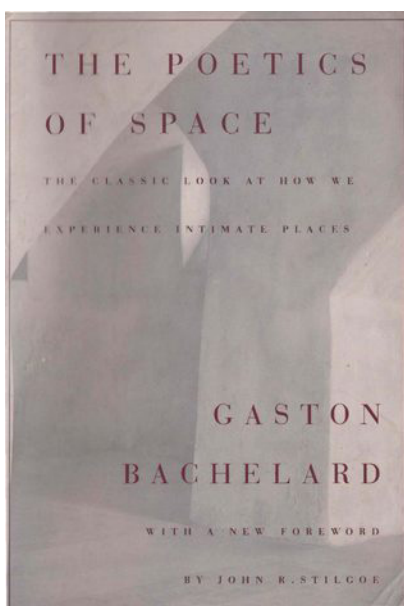


Figure 2. Reference Book, Cover of 1994 Edition





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Figure 1. Virgilkapelle (left), Wallpainting of a face (right)

#### Virgilkapelle / Artikel:

#### Luxusgruft, Mittelalter, billig abzugeben, ORF.at

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Die Virgilkapelle in Wien ist vieles: ein stadtarchäologischer Sensationsfund - sie wurde de facto komplett intakt 1973 mitten auf dem Stephansplatz ausgegraben - und durch ihre darauf folgende Ummantelung mit der U-Bahn-Station eine städtebauliche Kuriosität sondergleichen. Außerdem ist die Kapelle ein beeindruckend schöner Sakralbau. Eine Virgilkapelle ist sie aber eigentlich nicht. Der Bau schien einfach keinen Sinn zu haben: Im Mittelalter eine aufwendige Kapelle ohne direkten Zugang zu bauen, noch dazu unterirdisch, sah nach einem Irrläufer unter den Sakralbauten aus - bis die Sonne den Weg zur Lösung wies.

Die ursprüngliche Kapelle war von Tageslicht erleuchtet: Zwölf von insgesamt 13 Metern Höhe waren auch schon damals unter der Erde, von außen war nur ein rund ein Meter hoher Bau zu sehen. Umso eigenartiger, dass sich die Kirche selbst in ihren Archiven über den Bau ausschwig. Es gibt lediglich ein Dokument mit dem Verweis darauf, dass sich die Kapelle im Jahr 1307 schon im Privatbesitz einer gewissen Familie Chrannest befand. Chrannests ---- in der Kapelle einen Altar für den heiligen Virgil von Salzburg errichten---viel zu groß und aufwendig gestaltet, um den beabsichtigten Zweck als Familiengruft zu erfüllen.

...

Tatsächlich hat die Kapelle unter dem Stephansplatz alles, was ein Heiligengrab braucht - einen verdeckten Zugang, eine angeschlossene Zisterne, aus der „wundertätiges“ Wasser angeboten hätte werden können, und vor allem eben: Sonnenstrahlen, die das düstere Heiligtum genau zum Tag des heiligen Koloman in gleißendes Licht tauchen. Kolomans Überreste kamen aber eben nie nach Wien, und die Kapelle wurde durch den Verkauf offenbar bewusst aus dem Bewusstsein gerückt.

#### Virgilkapelle / Artikel:

<https://www.geschichtewiki.wien.gv.at/Virgilkapelle>

Die erste Bauphase wird um 1220/1230, also in die Regierungszeit Leopold VI. datiert. Sechs massive Pfeiler, zwischen denen halbrunde Nischen ausgemauert wurden, bildeten einen unterirdischen Raum mit der beachtlichen Höhe von etwa elf Metern. Die Nischen zwischen den sechs Pfeilern wurden mit Spitzbögen überwölbt, sodass darauf ein rechteckiger Raum errichtet werden konnte. Um 1246 stattete man die Kapelle mit den noch heute sichtbaren roten Fugenmalereien und großen Radkreuzen in den Nischen aus.

Es gibt für diese Phase keine baulichen Hinweise auf eine Treppe, über die man ihn auf einfache Weise hätte betreten können. Ein hölzerner Einbau ist denkbar. Licht kam in dieser Bauphase von Fenstern im oberen Bereich, durch die man vom Stephansfreithof aus hinabblicken konnte. In der Mittelachse der Kapelle, genau vor der Ostnische, befindet sich ein Brunnen, dessen Innenseite mit Steinen ausgekleidet ist und zu dem es möglicherweise einen gegenüberliegenden zweiten Brunnen gab. Wann genau im Tiefgeschoß Wasserstellen angelegt wurden



**Figure 2.** Die Virgilkapelle heute (links) und eine Rekonstruktion des Baues Mitte des 13. Jahrhunderts, vor Einziehung des heute bestehenden, gotischen Gewölbes vor 1300 irgilkapelle (left), Wallpainting of a face (right)

**Figure 2b.** Nennung der Virgilkapelle als Besitz der Familie Chranneest. Urkunde des Andre Chranneest, Kaplan an der Virgilkapelle, vom 2. Februar 1340  
Source: geschichtewiki- artikel vorh.

und ob dies praktische oder liturgische Gründe hatte, ist ungeklärt. Vergleichsbeispiele kennt man von Krypten in einigen französischen Kathedralen oder etwa dem Dom von Speyer, wo sie mit der Heilkraft benachbarter Reliquien in Verbindung gebracht werden.

## Timeline

14. Jahrhundert belegen schriftliche Quellen erstmals die Nutzung des Baues als Kapelle.

1307 nennt die damals dem Heiligen Virgil geweihte Kapelle auf dem St. Stephansfreithof

1340 bezieht sich Andre Chranneest in einer Urkunde auf die Virgilkapelle und bezeichnet sie als seines Vaters Kapelle, die auf dem Stephansfreithof unter dem Neuen Karner liegt.

1486 schlossen Bürgermeister und Rat der Stadt Wien mit dem Deutschen Orden einen Vertrag, der die Nutzung eines Kellers des Deutschordenshauses, das an den Stephansfreithof grenzte, als Karner erlaubte.

1589 ist dort der Gottesleichnamsaltar explizit genannt. Über Virgilkapelle und Karner wurde im 14. Jahrhundert die Maria-Magdalena-Kapelle errichtet, der Sitz der Schreiberzeche.

1781 nach einem Brand abgerissen wurde, füllte man die unterirdischen Räume mit ihrem Bauschutt. Der Bau geriet in Vergessenheit.

1973 im Zuge des U-Bahnbaues wiederentdeckt und als Museum in die U-Bahn-Station Stephansplatz integriert.



## 2.From 1230 to 1932

Virgilkapelle was a forgotten place for many centuries. During the construction of the Subway for Stephansplatz in 70s, this little chapel got discovered.

When I think about some rituals like knocking on the wood for three times, I can only tell that I learned in my family, without any belief or expectations, like a reflex, I saw my mother doing this gesture since I am little a boy, but where did she get it?

While time passes, a lot of things stay in the past and can't find their way to present. People forget, papers burn or disappear, building get destroyed and their parts get lost under the groud. However few things remain over the centuries.

How could one generate the path which an information follows through time? If we take a church with its sacred part underground and the first high-rise building of Vienna as two examples, how many generations would it take to transfer the experiences of a space from the underground, to the rooftop of the highest residential building, over 700 years long lasting memories of generations?

“Here space is everything, for time ceases to quicken memory. **Memory** – what a strange thing it is - **does not record concrete duration**, in the Bergsonian sense of the word. **We are unable to relive duration that has been destroyed. We can only think of it, in the line of an abstract time that is deprived of all thickness. The finest specimens of fossilized duration concretized as a result of long sojourn, are to be found in and through space.** The unconscious abides. **Memories are motionless, and the more securely they are fixed in space, the sounder they are.** To localize a memory in time is merely a matter for the biographer and only corresponds to a sort of external history, for external use, to be communicated to others.” (Bachelard 1969, 9)

If we would like to see how many lives would it take to go back in time for 700 years, we could easily use following tool:

“a person’s ancestor tree is a binary tree, formed by the person, the parents (2), the grandparents (4), great-grandparents (8), and so on.”

Therefore, if we take 25 years for a generation, then for 700 years we would need 28 generations. And to generate this fractal binary tree we can use the L-Systems introduced by theoretical biologist Aristid Lindenmayer which he used to model the growth process of plants.



Here, F means “draw forward”,  
– means “turn left 45°”, and  
+ means “turn right 45°”.

X does not correspond to any drawing action and is used to control the evolution of the curve. The square bracket “[” corresponds to saving the current values for position and angle, which are restored when the corresponding “]” is executed.

### 1.6. Branching structures

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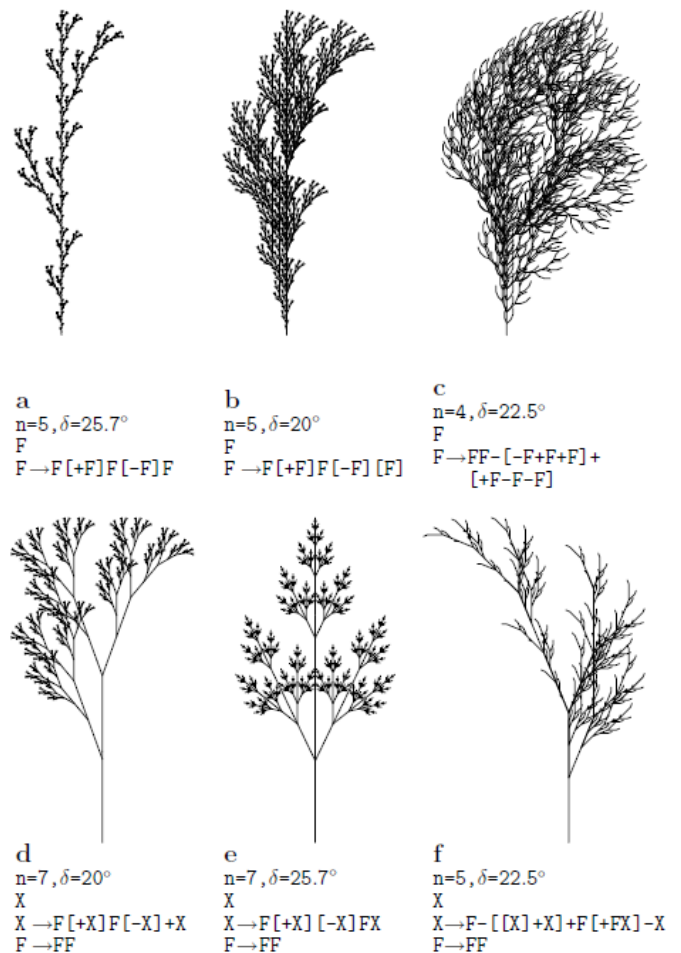


Figure 1.24: Examples of plant-like structures generated by bracketed OL-systems. L-systems (a), (b) and (c) are edge-rewriting, while (d), (e) and (f) are node-rewriting.

Figure 3. Examples of binary trees from the book „The Algorithmic Beauty of Plants“ by Aristid Lindenmayer and Przemyslaw Prusinkiewicz

by a single individual."

The amount of our ancestors would make:

$$2^{28} = 435456 \text{ person}$$

Aside from the fact that drawing a tree with that amount of curves would be a overkill for my computer, I have to mention the problem of this calculation leads us to a paradox:

"The number of individuals in such a tree grows exponentially and will eventually become impossibly high. For example, a single individual alive today would, over 30 generations going back to the High Middle Ages, have 230 or roughly a billion ancestors, more than the total world population at the time. This paradox is explained by shared ancestors, referred to as pedigree collapse. Instead of consisting of all different individuals, a tree may have multiple places occupied

To trace the past through generations, an emperor family like Habsburger can be useful, but even in such households many memories disappear. To make it from the story to the history, time devours all things.

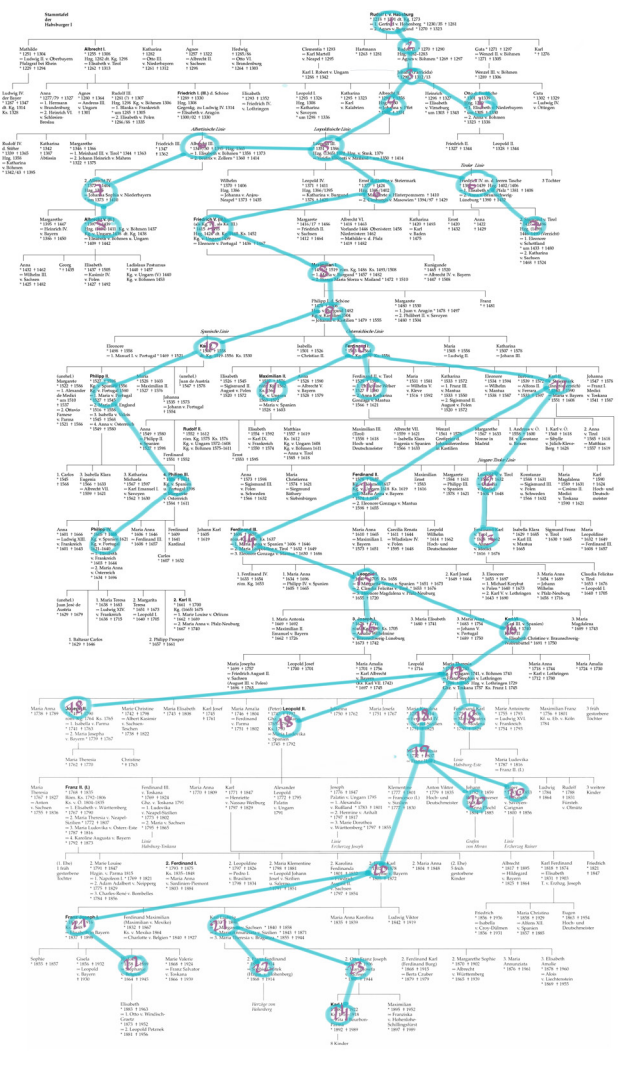
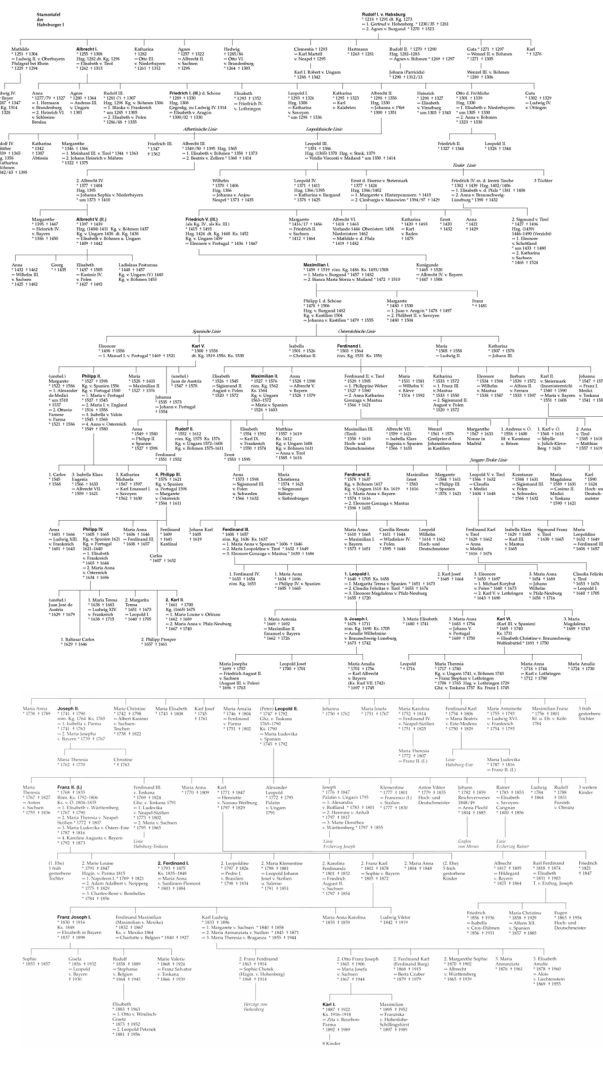


Figure 4. Counting the Generations in the House of Habsburg

## Do Androids Dream of Electric Sheep?

### generation:

1. [noun] all of the people born and living at about the same time, regarded collectively.
2. [mass noun] the production or creation of something.

I would like to focus now on the second meaning of generation, meaning the production and creation of something.

While I was researching the most common use of this word in contemporary creative field, I found tools that create images from images using Artificial Intelligence and Machine Learning.

### Generative Adversarial Networks (GAN)

GAN is a framework proposed by Ian Goodfellow, Yoshua Bengio and others in 2014. Generative adversarial networks (GANs) are algorithmic architectures that use two neural networks, pitting one against the other (thus the “adversarial”) in order to generate new, synthetic instances of data that can pass for real data.

#### 1. Image-to-Image Translation with Conditional Adversarial Networks, Phillip Isola, Jun-Yan Zhu, Tinghui Zhou, Alexei A. Efros

“We investigate conditional adversarial networks as a general-purpose solution to image-to-image translation problems. These networks not only learn the mapping from input image to output image, but also learn a loss function to train this mapping. This makes it possible

to apply the same generic approach to problems that traditionally would require very different loss formulations.” (Isola 2014, 1)

Using this system one can draw a sketch of a cat and the program will create a photorealistic image of a cat out of it using the frames of the sketch. Same works for shoes, bags and building facades. In the **Figure 5** you can see a building facade created with my trial using the demo in a website using GAN.

#### 2. ArchiGAN: a Generative Stack for Apartment Building Design, Stanislas Chaillou

In his master thesis Chaillou uses GAN to generate floor plans using AI. Additionally, he defines a 3-step process to create floor plans:

- (I) building footprint massing
- (II) program repartition
- (III) furniture layout

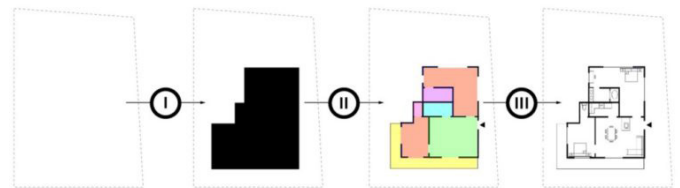


Figure 6. Chaillou's 3-step Generation process ,2019

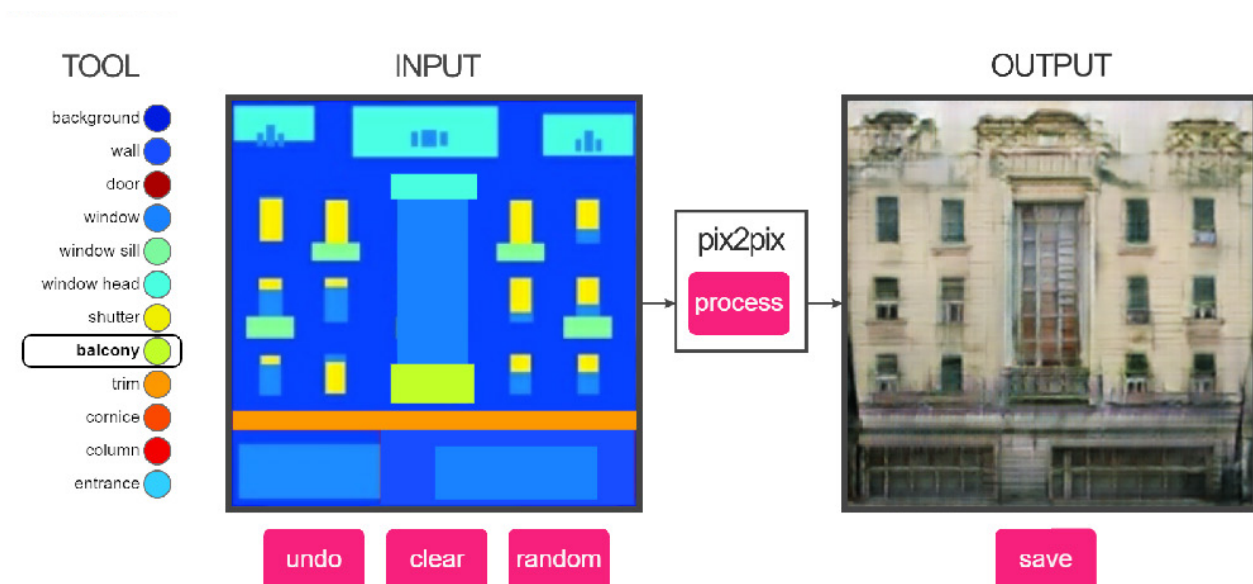
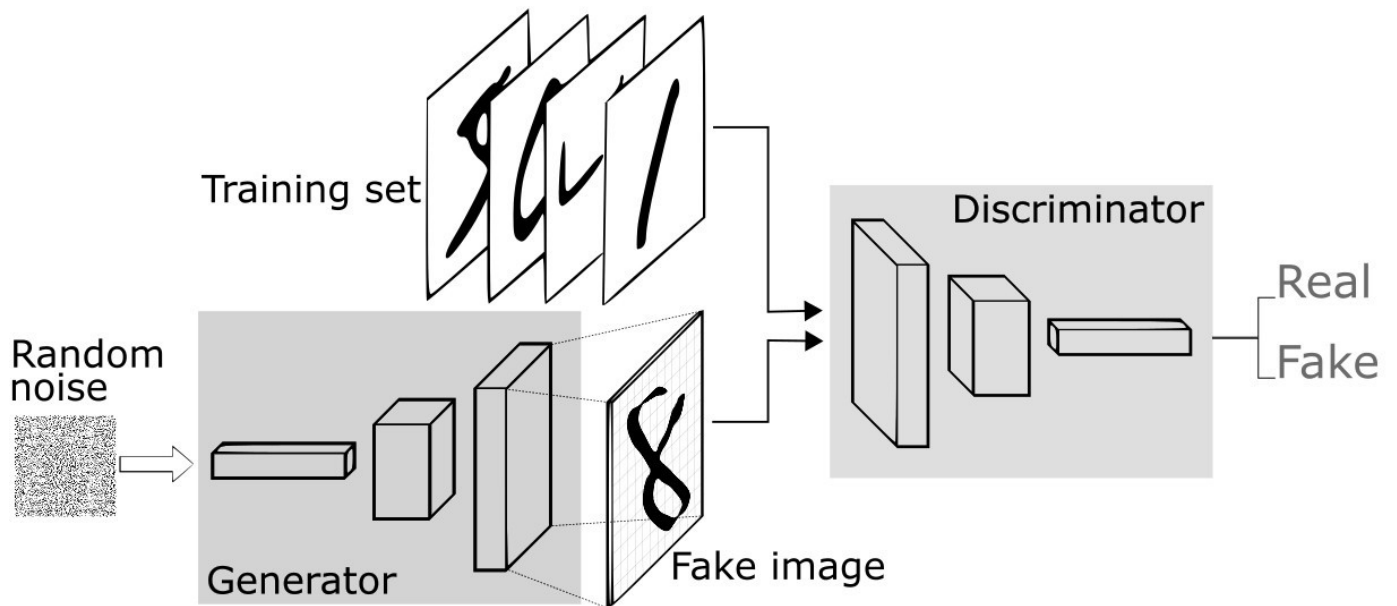


Figure 5. Generated Facade using GAN



**Figure 7.** Generative Adversarial Network framework.

After this short excursion to see how a computer creates images based on its training, we might relate this process to our mind, and how it generates images.

I would like to come back to human mind and our journey traveling 700 years back in time. For that kind of daydreaming -in Bachelard's words- we need motionless memories fixed in space and some imagination.

#### **imagination:**

1. in Psychology. the power of reproducing images stored in the memory under the suggestion of associated images (reproductive imagination) or of recombining former experiences in the creation of new images directed at a specific goal or aiding in the solution of problems.



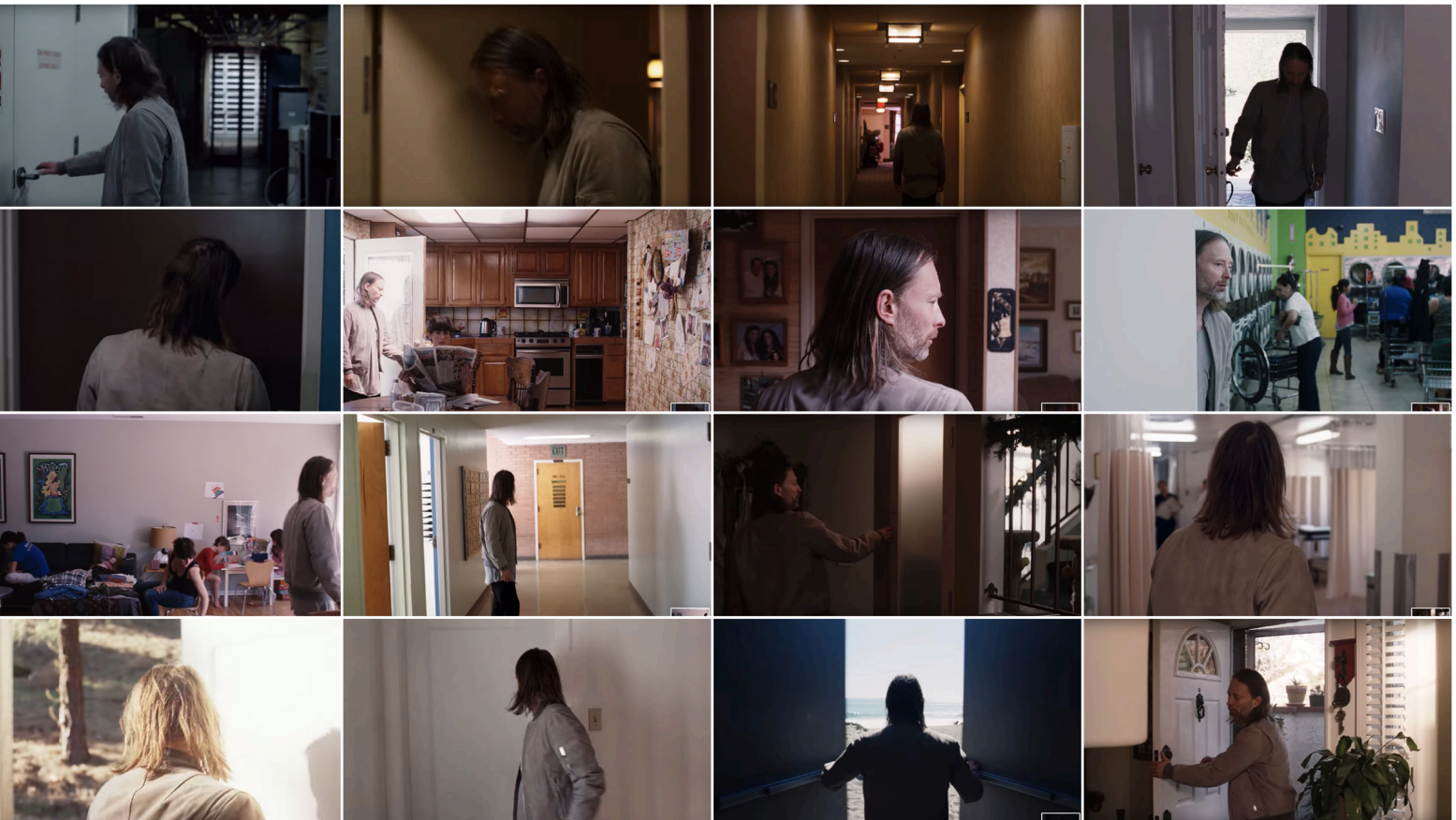


Figure 8. Thom Yorke walking through spaces

## Notes on Visual References / Literature

### 1. Videoclip Daydreaming - Radiohead, Directed by Paul Thomas Anderson

In this video we see the lead singer Thom Yorke walking through spaces, with each door he opens he finds himself in a different room. This combination of different spaces presents us Yorke like a ghost traveling through space and time. He opens 23 doors as representation of his 23 years long journey with the epic band Radiohead. In each room there are symbols hidden to give traces back to the recorded albums from the band. In the end of the video Yorke find a cage and lays down close to the fire. Then he looks through the camera like a „meta“ from Brecht theater and says „Every minute, half of my life“ but in reverse.



## 2. Life a User`s Manual by Georges Perec

„The stairs, for him, were, on each floor, a memory, an emotion, something ancient and impalpable, something palpitating somewhere in the guttering flame of his memory: a gesture, a noise, a flicker, a young woman singing operatic arias to her own piano accompaniment, the clumsy clickety-clack of a typewriter, the clinging smell of cresyl disinfectant, a noise of people, a shout, a hubbub, a rustling of silks and furs, a plaintive miaow behind a closed door, knocks on partition walls, hackneyed tangos on hissing gramophones, or, on the sixth floor right, the persistent droning hum of Gaspard Winckler's jigsaw, to which, three floors lower, on the third floor left, there was now by way of response only a continuing, and intolerable, silence.“ (Perec 1978, 86)

**Mention:** Chronology in the beginning of the book

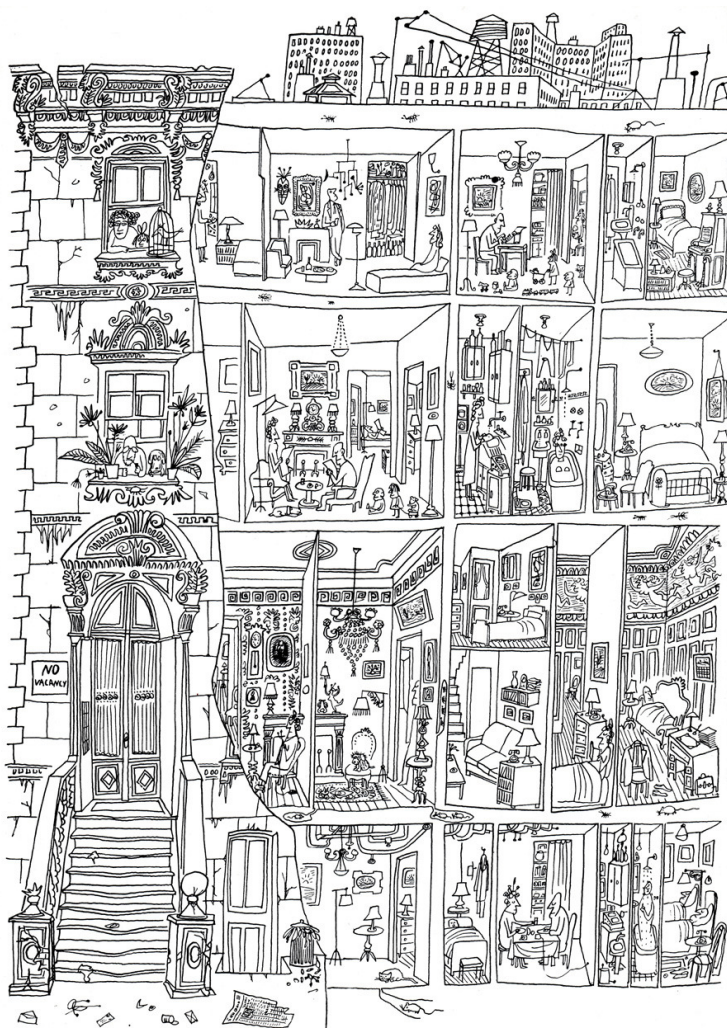


Figure 9. *The Art of Living* (1952) by Saul Steinberg

## 2. Species of Spaces and Other Pieces by Georges Perec

84 *Species of Spaces*

by some of your friends, in relation both to one another and to yourself. List the differences in levels (the ones who, like you, live on the first floor, the ones who live on the fifth, the sixth, etc.), the direction they are facing, imagine their movements through space.

Long ago, like everyone else I presume, and no doubt on one of those little three-month diaries the Librairie Gibert gave away at the start of the autumn term, you went to swap the Carpentier-Fialap and Roux-Combaluzier textbooks of the year before for the Carpentier-Fialap and Roux-Combaluzier of the year ahead, I used to write my address as follows:

Georges Perec  
18, Rue de l'Assomption  
Saircase A  
Third floor  
Right-hand door  
Paris 16e  
Seine  
France  
Europe  
The World  
The Universe

*playing with space*

Play with large numbers (factorials, Fibonacci series, geometric progressions):

Distance from the Earth to the Moon: a sheet of cigarette paper so fine it would take a thousand of them to make a millimetre, folded in two 49 times in a row;

Distance from the Earth to the Sun: ditto, folded in two 58 times in a row;

Distance from Pluto to the Sun: the same again; by folding it four more times you're just about there, but fold it five more times

SPACE 85

Distance from Earth to Alpha Centauri: fifteen more foldings.

Play with distances: prepare a journey that would enable you to visit or pass through all the places that are 314.60 kilometres from your house;

Look up the route you've followed on an atlas or army map.

Play with measurements: reacquaint yourself with feet and leagues (if only to make it easier to read Stendhal, Dumas or Jules Verne); try and get once and for all a clear idea of what a nautical mile is (and by the same token, a knot); remember that a *journal* is a unit of space, it's the surface area a farm labourer can work in a day.

Play with space:

Cause an eclipse of the sun by raising your little finger (as Leopold Bloom does in *Ulysses*).

Have yourself photographed holding up the Leaning Tower of Pisa.

Start to get used to living in a state of weightlessness; forget verticals and horizontals: Escher's engravings, the inside of spaceships in 2001: *A Space Odyssey*.

Reflect on these two quite brilliant thoughts (complementary as it happens):

*I often think about how much beef it would take to turn the Lake of Geneva into consommé. (Pierre Dac, L'Os à moelle)*

*Elephants are generally drawn smaller than life size, but a flea always larger. (Jonathan Swift, Thoughts on Various Subjects)*

Figure 10. *The Art of Living* (1952) by Saul Steinberg

## EPOS UND TOPOS

### 1. Projektbeschreibung

„Nicht allein unsere Erinnerungen, auch unsere Vergessenheiten sind *einquartiert*. Unser Unbewußtes ist einquartiert. Unsere Seele ist eine Wohnung. Und wenn wir uns an *Häuser* und *Zimmer* erinnern, lernen wir damit, in uns selbst zu wohnen. Jetzt sieht man es, die Bilder des Hauses bewegen sich in zwei Richtungen: sie sind in uns ebenso, wie wir in ihnen sind.“ (Poetik des Raumes, Bachelard, 26 )

Jahrhundertlang war die Virgilkapelle ein vergessener Raum, der unter der Erde vergraben lag, bis sie 1973 während des U-Bahn-Baus entdeckt wurde.

Am Beispiel dieser Kapelle soll dieses Projekt uns durch eine Reise der Erinnerungen durch Zeit und Raum führen.

Dieses Projekt soll eine architektonische Rekonstruktion eines 800 Jahre alten kollektiven Gedächtnisses, welches aus individuellen innenräumlichen Charakteren besteht illustrieren.

Der Begriff *des kollektiven Gedächtnisses* von Maurice Halbwachs (1950) soll als Werkzeug dienen um die Erinnerungen einer Gesellschaft als ein soziales Phänomen, welches länger als ein Individuum existiert, zu verstehen.

Zudem dient die *Topoanalyse* von Gaston Bachelard (1969) als Methodik um die Kraft der Innenräume als Poetische Bilder auf der individuellen Ebene zu analysieren.