APPENDIX

### 15   A glimpse into Luhmann's Zettelkasten
and a few words on software

Let's have a look at the section within Luhmann's Zettelkasten where he prepared a short article (8 pages) with some observations about his Zettelkasten. This section contains 17 notes starting with the number 9/8, which is directly followed by two branched-out note sequences. One contains ten consecutive notes (9/8a to 9/8j), and one containing three consecutive notes (9/8,1, 9/8,2 and 9/8,3). Another short branch starts at note 9/8a, which is followed by 9/8a1 and 9/8a2, and one equally short branch starts at 9/8b, which is followed by 9/8b1 and 9/8b2. The notes before and thereafter (the sequences starting at 9/7 or 9/9) are thematically unrelated. It is a section with few references to external literature and few cross-references compared to other sections on more complex topics.
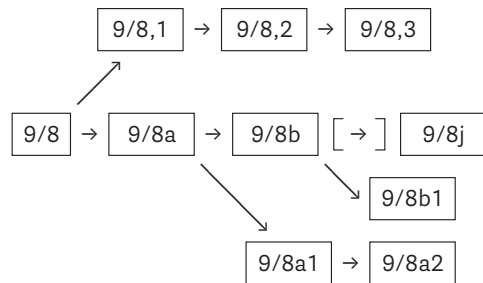
In the slip-box, this section looks like this.

Fig. 1
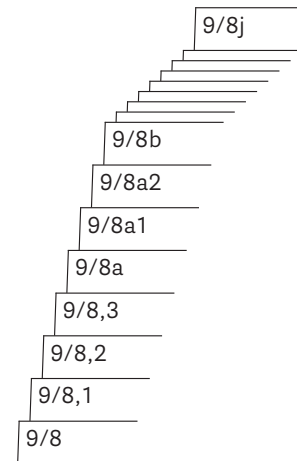
Visualising the branches, it looks like this.

Fig. 2

Even though some parts of Luhmann's Zettelkasten are already very close to the final manuscript, the notes and note sequences are not always fully comprehensible for an outsider. Reading them is a bit like eavesdropping on a conversation between two old friends, who, over time, have developed their own language and don't have to explain everything to each other anymore. This makes it sometimes a bit difficult for an outsider to fully grasp what is going on between the notes and the user. On note 9/8,3 he addresses this in regard to visitors who want to have a look at the Zettelkasten. It says:

Geist im Kasten?	Spirit in the box?
Zuschauer kommen.	Spectators visit.
Sie bekommen alles zu	They get to see everything,
sehen, und nichts als	and nothing but
das – wie beim Pornofilm.	that – like in a porn movie.
Und entsprechend ist die	And accordingly
Enttäuschung.	the disappointment.

The first note in this sequence, 9/8, is more on the abstract side:

Zettelkasten als	Zettelkasten as a
kybernetisches System	cybernetic system
Kombination von Unordnung	Combination of disorder and
und Ordnung, von Klumpe-	order, of clumping and
nbildung und unvorhersehbarer,	unpredictable combinations
im ad hoc Zugriff realisierter	realised in ad hoc access.
Kombination.	
Vorbedingung: Verzicht auf	Precondition: doing without
festgelegte Ordnung.	a fixed order.
Die vorgeschaltete	Preceding differentiation:
Differenzierung: Suchhilfen vs.	search aids vs. content;
Inhalt; Register, Fragestellungen,	registers, questions, ideas vs.
Einfälle vs. Vorhandenes überformt	existing ones reshaped and
und macht z.T. entbehrlich,	sometimes makes superfluous
das, was an innerer Ordnung	that which has to be assumed
vorausgesetzt werden muss.	in terms of internal order.

The note behind with the number 9/8,1 is more of a question.

Thema: Kommunikation	Topic: Communication
mit dem Zettelkasten:	with the slip-box: How do
Wie kommt man zu einem adae-	you develop a suitable partner,
quaten Partner, Junior-Partner?	junior partner?
– wichtig, nachdem das Arbeiten	– important after working
mit Personal immer schwieriger	with staff is becoming more and
und immer teurer wird.	more difficult and expensive.
Zettels Wirklichkeit	Slip of paper's reality

There are two more notes in this note-sequence, which I leave out here

(9/8,2 and 9/8,3)

The next note in the box is branched out from the first one and has the number 9/8a

Das Produktivitätsproblem muss in bezug auf eine Relation gestellt werden, nämlich in bezug auf die Relation von Zettel-kasten und Benutzer.	The productivity problem has to be posed in relation to a relation, namely in relation to the relation between the slip-box and the user.

This is followed by 9/8a1 and 9/8a2 before the original sequence continues with 9/8b

Der Zettelkasten ist unaufhörlich gewachsen, und ich habe versucht, so gut ich konnte und soweit meine Fähigkeiten reichen, davon zu profitieren.	The slip-box has grown incessantly and I've tried to benefit from it as best I can and as far as my abilities can reach.

Zettelkasten als Klärgrube – nicht nur abgeklärte Notizen hineintun. Aufschieben des Prüfens und Entscheidens – auch eine Tempofrage.	Slip-box as a septic tank – don't just put clarified notes in it. Postponing testing and making decisions – also a question of speed.

9/8b contains a reference which also can be found in a footnote in the

final article.

Zur allg. Struktur von Gedächtnis-sen vgl. Ashby 1967, S. 103.	On the general structure of memories see Ashby 1967, p. 103.
Es ist danach wichtig, dass man nicht auf eine Unmenge von Punkt-für-Punkt Zugriffe angewiesen ist, sondern auf Relationen zwischen Notizen, also auf Verweisungen zurückgreifen kann, die mehr auf einmal verfügbar machen, als man bei einem Suchimpuls oder auch bei einer Gedanken-fixierung im Sinn hat.	It is then important that you do not have to rely on a vast number of point-by-point accesses, but can fall back on relationships between notes, i.e. on references that make more available at once than you would with a search impulse or even with a fixation on a thought in mind.

And this is a passage from the published article where we can find the

same information embedded in a different context and clarified for the reader.[40]

„Jedenfalls gewinnt die Kommuni-kation an Fruchtbarkeit, wenn es gelingt, aus Anlaß von Eintragun-gen oder von Abfragen das interne Verweisungsnetz in Betrieb zu setzen. Auch ein Gedächtnis funk-tioniert ja nicht als Summe von Punkt-für-Punkt Zugriffen, sondern benutzt interne Relationierungen und wird erst auf dieser Ebene der Reduktion eigener Komplexität fruchtbar. [3] Auf diese Weise wird – durchaus punktuell, in diesem Moment, aus Anlaß eines Suchim-pulses – mehr an Information ver-fügbar, als man bei der Anfrage im Sinne hatte; und vor allem mehr an Information, als jemals in der Form von Notizen gespeichert wor-den waren.	"In any case, communication becomes more fruitful when we succeed to activate the internal network of links at the occasion of writing notes or making queries. Memory does not function as the sum of point-by-point accesses, but rather utilises internal relationships and becomes fruitful only at this level of the reduction of its own complexity.[3] In this way, more information becomes available at this isolated moment of a search impulse than one had in mind. There is also more information than was ever stored in the form of notes. →

Der Zettelkasten gibt aus gege-benen Anlässen kombinatorische Möglichkeiten her, die so nie geplant, nie vorgedacht, nie konzi-piert worden waren." *Fn 3: Vgl. W. Ross Ashby, The Place of the Brain in the Natural World, in: Currents in Modern Biology 1 (1967), S. 95 –104, besonders auch im Hinblick auf die Inadäqui-tät der Computer-Technologie in speziell dieser Hinsicht.*	The slip-box provides combina-torial possibilities which were never planned, never preconceived, or conceived in this way." Fn 3: Cf. W. Ross Ashby, The Place of the Brain in the Natural World, in: Currents in Modern Biology 1 (1967), S. 95 –104, especially with regard to the inadequacy of computer technology in particular in this regard.

While most of you will implement the idea of the Zettelkasten with the help of software and without the need for Luhmann's quaint numbering system, it is important to realise what crucial thing it prompts us to do: look for existing threads within the system to expand on. It encourages us to continue a dialogue by adding to existing note sequences instead of col-lecting isolated snippets. Note sequences occupy the sweet spot between isolated facts/ideas and continuous text. They are what the Zettelkasten is all about. Therefore: Make sure a new note is written, whenever possible, in direct response to an existing note, continuing the dialogue.

If your program allows linking to individual blocks within a page, feel free to write whole note sequences on a single page with each block (or paragraph) as a single note. As long as you treat each block (or para-graph) as a stand-alone note, addressable from anywhere else, you keep the granularity of your notes while benefitting from a better overview over an existing thread.

If you really like the software you have chosen, you might want to use it for writing both literature notes and permanent notes, maybe even project notes. That is okay and helps to remove the friction of switching

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40   The translation of the article (Luhmann 1992) by Manfred Kuehn
into English can be found on his website: http://luhmann.surge.sh/
communicating-with-slip-boxes

between apps. But make sure you keep the distinction between the different note types clearly visible within the program; write note sequences and build up your critical mass of ideas only within the network of permanent notes.

While all tools and software we use influence the way we work, the best note-taking apps available are characterised by their openness and flexibility. But with this freedom also comes the need to implement structure. Having a page with a top-level overview of the major themes and topics you are working on can be very helpful, especially in the beginning. But in contrast to a folder setup, this is in itself an idea among others. It is an idea about the structure on a note and therefore open to change. The same is true for midlevel "entry notes" into particular topics or "Maps of Content." Whenever complexity has built up, it makes sense to give yourself an overview of the different aspects of a topic on such a note. This, too, is not about imposing structure onto the system, but making an implicit idea about structure explicit and therefore open to change. It is worth repeating here: How we structure a topic is how we think about a topic and therefore a thought in itself. It belongs in the slip-box as a note, becoming therefore something to be tested, questioned and discussed.

But most importantly and whatever tool you use: Keep it light, do what feels right, adjust the workflow along the way. Try out different paths, experiment, be playful. There is no right and wrong as long as you stick to the principles. And don't take it too seriously. Good ideas flourish in a relaxed environment. The Zettelkasten is a dialogue partner you should have fun collaborating with. And on that note, let's have a last look into Luhmann's slip-box. The final note he has written in this sequence about the Zettelkasten is note number 9/8j:

Im Zettelkasten ist ein Zettel, der das Argument enthält, das die Behauptungen auf allen anderen Zetteln widerlegt.

Aber dieser Zettel verschwindet, sobald man den Zettelkasten aufzieht.

D.h. er nimmt eine andere Nummer an, verstellt sich und ist dann nicht zu finden.

Ein Joker.

In the Zettelkasten is a slip of paper containing the argument that refutes the claims on all the other slips of paper.

But this note disappears as soon as you open the box.

That means it takes on a different number, moves somewhere else and is then not to be found.

A wild card.