ABSTRACT
Since 2002, over 100 “new” Dead Sea Scrolls fragments have appeared on the antiquities market. They are commonly described as “post-2002 Dead Sea Scrolls-like fragments”. In this article, we present a comprehensive dataset of these fragments, significantly expanding upon Eibert J. C. Tigchelaar’s landmark article “A Provisional List of Unprovenanced, Twenty-First Century, Dead Sea Scrolls-like Fragments” from 2017. Even though the fragments are now commonly believed to be modern forgeries, they continue to impact Dead Sea Scrolls research and market-leading Bible study applications like Accordance and Logos. Our open-access database provides a systematic, accessible, and comprehensive repository for the post-2002 fragments and associated data enabling researchers to streamline research efforts and foster collaboration.
(1) CONTEXT

The finding of the first Dead Sea Scrolls in 1946 or –47 is often characterised as the most significant archaeological discovery of the 20th century (Roitman, 2001: 42). In the following decade, Bedouins and archaeologists found tens of thousands of fragments in caves northwest of the Dead Sea. During the early 50s, the Dead Sea Scrolls publication project was initiated. This project was not completed until almost 50 years later, in 2001. That year, the Editor-in-Chief Emanuel Tov, announced that all the Dead Sea Scrolls manuscripts and fragments had finally been published (AP Archive, 2015).

Already the following year, despite the completion of the publication project, new unpublished “Dead Sea Scrolls” fragments started appearing on the antiquities market (Schutten, 2005; Boyer, 2005). Most of them could be traced back to the antiquities dealer William Kando in Bethlehem—son of Khalil Iskander Shahin, who bought and sold Dead Sea Scrolls manuscripts and fragments in the late 40s, 50s, and early 60s (Justnes & Kjeldsberg, 2023: 243). Today, there are more than a hundred of them.

Eibert J. C. Tigchelaar has characterised the new fragments as Dead Sea Scrolls-like: “They remind one of Dead Sea Scrolls fragments, but not all of them are necessarily genuine” (2017: 177). Despite this, many of them were published as authentic Dead Sea Scrolls in authoritative books and journals. Even though a majority of scholars now think that most, if not all, of these fragments are modern forgeries, they have de facto become part of the official Dead Sea Scrolls dataset. In this article, we will refer to them as the post-2002 fragments.

There is an urgent need to publish a comprehensive open-access dataset of these fragments. They are not included in the two main digital repositories of Dead Sea Scrolls, i.e., the Leon Levy Dead Sea Scrolls Digital Library and its successor the Scripta Qumranica Electronica (SQE). These two databases mostly consist of photos of Dead Sea Scrolls fragments, with minimal information about the objects themselves. The main analogue resources for post-2002 fragments have their shortcomings and limitations, too. Tov’s authoritative list of Dead Sea Scrolls manuscripts and fragments is outdated with regard to the post-2002 fragments (Tov, 2010), and Tigchelaar’s “Provisional List of Unprovenanced, Twenty-First Century, Dead Sea Scrolls-like Fragments” has not been updated since it was published seven years ago (Tigchelaar, 2017).

In the following, we present a comprehensive open-access database of the post-2002 fragments. It provides a systematic repository of the fragments and associated data enabling researchers to streamline research efforts, foster collaboration, and generate new knowledge.

(2) DATABASE DESCRIPTION

OBJECT NAME

A Database of Post-2002 Dead Sea Scrolls-like Fragments.

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1 For more information about the scrolls’ discovery, see John Trever’s The Untold Story of Qumran (1965: 102–104).
2 According to Emanuel Tov (2002: xi), who served as the last editor-in-chief for the official scroll publication series, the Dead Sea Scrolls consists of approximately thousand manuscripts. This number might be too high as it includes several of the fake post-2002 fragments.
3 Possible exceptions are a few unidentified fragments and scraps (see section two of the article). In the last seven years, several scientific investigations of the authenticity of these fragments have been made (see, for example, Davis et al., 2017 and Art Fraud Insights, 2020). So far, no post-2002 fragment has been authenticated.
4 See Tov, 2010: 109-110, and leading Bible study applications like Accordance and Logos.
ACCESS
Dataverse files can be accessed at https://doi.org/10.18710/JKTXN1. The Streamlit web application is accessible at https://lyingpendatabases.streamlit.app/.

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Author 2: project administration, data curation, formal analysis investigation, methodology, writing – original draft, writing – review & editing.
Author 3: conceptualisation, data curation, validation, visualisation, writing – original draft, writing – review & editing.

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(3) DATABASE STRUCTURE
Our database of post-2002 fragments records over 100 different items, including a small collection of 15 scraps. As illustrated in Figure 1, each entry has 21 attributes represented as columns. In the following, we provide a detailed review of the structure and content of the database.

3.1 ITEM NUMBER (NO.)
This attribute presents the sequence of the fragments. Each number, ranging from one to 103, also serves as a unique identifier. Since it is likely that the majority of these fragments were produced for buyers with a demand for biblical texts (Justnes & Kjeldsberg, 2023: 240–241), i.e. American Evangelicals, we have divided the fragments into five categories presented in a ranked order as illustrated in Figure 2. The ranking expresses both value and authority in a typical Evangelical belief system. The higher the category appears in the hierarchy, the higher its perceived value.

7 The database is published in a spreadsheet format. Note that this is a different representation compared to its web interface (cf. section 4 below). In this section, we only refer to the database in its spreadsheet format.
8 The first dataset of the post-2002 Dead Sea Scrolls-like fragments was published on 11 August 2016 on the website of the Lying Pen of Scribes project https://lyingpen.com. Since 2019, the project has been funded by the Research Council of Norway, see https://prosjektbanken.forskningsradet.no/en/project/FORISS/275293.
3.2 ITEM NAME

The Item Name attribute aggregates information from three other attributes: DSS F. No., DSS F. Name and Content. DSS F.-information will take precedence. If an item lacks a DSS F.-number and -name, it will retrieve information from the content attribute.

3.2.1 DSS F. No. and -Name

The DSS F. No. and -Name attributes are based on the numeric reference system introduced by Tigchelaar (2017: 177). The numbers range from 101 to 203, but only around two thirds of them are utilised. In this system, only fragments that were part of six manuscript collections were indexed (cf. Tigchelaar, 2017: 185–186):

- DSS F.101–137: The Schøyen Collection
- DSS F.151–155: Azusa Pacific University

Paradoxically, fragments in the largest collection, the Kando family collection, have not been indexed.
• DSS F.156: Foundation on Judaism and Christian Origins
• DSS F.161–170: Southwestern Baptist Theological Seminary
• DSS F.181: Lanier Theological Library
• DSS F.191–203: Museum of the Bible

Fragments with a DSS F. No. also have a DSS F. Name, which points to their textual content. For instance, DSS F.101, which contains text from Genesis 36:7–16, is named DSS F.Gen1. “Gen1” signals that it was the first Genesis fragment to be indexed.

3.2.2 Content

**Content** refers to words on the fragments aligning with passages in ancient Jewish writings. The distribution of the textual content in the post-2002 fragments is shown in Figure 3. Nearly 90% of the fragments with recognisable content feature text found in the Old Testament (Justnes, 2017: 71). This distribution differs fundamentally from that of the authentic Dead Sea Scrolls, where only 25% of the fragments and manuscripts contain biblical texts.

![Textual Distribution of Post-2002 Fragments](image)

**Figure 3** Distribution of the post-2002 fragments according to their textual content. Nearly 90% of the identified fragments feature text found in the Old Testament. 11 fragments have text that is not identified.

3.3 SIGLA

The sigla classification collects different names and labels that scholars have assigned to the fragments. The first attribute, **Incorrect DSS Identifications**, lists scholars’ (unsuccessful) attempts to identify post-2002 fragments with authentic Dead Sea Scrolls manuscripts. The second, **Recently Invented DSS Manuscript Labels**, records new manuscripts invented on the basis of one or more post-2002 fragments. See, for example, **Item No. 5**, which has the label “4Q(?)GenMiniature [Elgvin, 2016]”. 4Q(?)GenMiniature is a scholarly construct introduced by Torleif Elgvin in 2016 for a single fragment. The different elements in the label carry the following information:

- 4Q(?): The fragment may come from Qumran Cave 4 (according to Elgvin)
- Gen: It contains text from the biblical book of Genesis
- Miniature: It is written in miniature script

The third attribute, **Siglum (Name) in Tov, Revised Lists (2010)**, lists the labels assigned to post-2002 fragments in Tov’s authoritative lists of Dead Sea Scrolls manuscripts and fragments. The fourth, **Siglum and Fragment Number in Accordance**, collects sigla and fragment numbers from the Accordance modules “Dead Sea Scrolls Biblical Corpus (Canonical Order)” (DSSB-C) and “Dead Sea Scrolls Biblical Corpus (Manuscript Order)” (DSSB-M) (OakTree Software, 2009a and 2009b). Accordance is the leading Bible Software on the market.

3.4 CURRENT LOCATION
The attribute Current Owner is self-explanatory. Collection No. is only relevant for fragments belonging to the Schøyen Collection, Azusa Pacific University, the Museum of the Bible, and the National Christian Foundation. These inventory numbers consist of a prefix identifying the collection and an item number.

3.5 ALLEGED PROVENANCE
The Alleged Provenance attribute collects pedigrees and (purported) provenance stories connected to the post-2002 fragments. These fragments were often launched with fabled stories, i.e. created to convince potential buyers that the fragments were authentic and legitimate (Justnes & Rasmussen, 2017: 1). One detail frequently repeated is that fragments reached Europe before 1970, thus avoiding implications from the UNESCO 1970 Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (Mizzi & Magness, 2019: 143).11 In the database, the sources for these fake provenance stories are indicated in brackets.12

3.6 CHANGE OF HANDS
This classification of attributes collects information related to the sale and donation of post-2002 fragments, with the main information stored in Sale (➤), Donation (➢), and Collaboration (→). The term Collaboration is used to represent person(s) or institution(s) who acted as a representative of a seller in a transaction. The two attributes Asking Price and Purchase Price are self-explanatory. See, for example, Item No. 2 “DSS F.191 Gen2”, which has the following information on sales and donation:


This means that the fragment had been sold twice, before finally donated by Steve Green to the Museum of the Bible. James Charlesworth acquired the fragment from an unknown seller reportedly on 25 October 2006, then sold it to Steve Green in February 2010, through Michael Sharpe as his representative. For this item, there is no available Asking Price and Purchase Price.

3.7 PHYSICAL ATTRIBUTES
This classification contains the attributes Lines and Measurements (in cm). Lines list the number of lines with text on each fragment, while Measurements give information about the size of every fragment.

3.8 PRINCIPAL EDITION
The Principal Edition lists the first publication of each published fragment.

3.9 BIBLIOGRAPHY
This attribute provides a comprehensive publication list for each of the fragments.

3.10 VISUALISATION GROUPING
The visualisation grouping attributes, i.e., Composition and Canonical Categorisation, are created to enable various visualisations shown both in this article and the web interface, e.g., Figure 3. Both attributes present the organisation of post-2002 fragments according to their textual content. Generally, Composition is a category at the book or manuscript level, e.g., Genesis and Temple Scroll. Entries in this category are further organised into the Canonical Categorisation, according to the viewpoint illustrated in Figure 2.

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12 Concerning publishing of unprovenanced material, see Mizzi & Magness 2019: 135: “[A]ny artifact that lacks verifiable documentation of its provenance—whether or not it is authentic—should not be studied or published by scholars.”
(4) WEB INTERFACE

To allow a more user-friendly interaction with the post-2002 fragments database, a web interface has been created. It is written in pure Python, with a Streamlit open-source package handling its front-end functionalities. The main options, i.e., **Overview**, **Filter textual content**, **Visualisation gallery**, and **Search** are organised as tabs and can be seen in Figure 4.

The Post-2002 Dead Sea Scrolls-like Fragments

By Ludvik A. Kjeldsberg, Arstein Justnes, and Hilda Deborah

Since 2002, over 100 “new” Dead Sea Scroll fragments have appeared on the antiquities market. These tiny fragments, some of which have been compared to blackened cornflake pieces, have had a big impact on the field of scroll research.

To read all entries listed in this database, see the **Overview** tab. The tab **Filter Content** will give all entries grouped by its content, accompanied by a visualisation of their distribution across the group. The tab **Search** allows a free text search and, finally, **Visualisation gallery** will provide visualisations of different aspects of the database.

### 4.1 OVERVIEW

The **Overview** functionality allows users to explore the database in a spreadsheet format, with the possibilities of viewing the spreadsheet on full screen and sorting entries based on any one column. The option for full-screen mode will show up upon hovering over the spreadsheet. In this format, missing information is shown as “None” and written in greyed-out font, see the example in Figure 5.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Content</th>
<th>DSS F. No.</th>
<th>DSS F. Name</th>
<th>Invented DSS Labels</th>
<th>False DSS Identifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gen 13:1–3</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>8Q1 (Gen) frg. 1a 1–3 by Eshel and Eshel [2005]</td>
</tr>
<tr>
<td>2</td>
<td>Words from Genesis 22</td>
<td>None</td>
<td>None</td>
<td>Genesis Midrash</td>
<td>4Q286 [gsJubb] frg. 6a 1–4 by Eshel and Eshel [2005]</td>
</tr>
<tr>
<td>3</td>
<td>Gen 3:22–25, 32:3–6</td>
<td>191</td>
<td>Gen2</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>Gen 33:19–34:2</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>4Q6 (Gen) frg. 1a 1–3 by Eshel and Eshel [2005]</td>
</tr>
<tr>
<td>5</td>
<td>Gen 36:7–16</td>
<td>101</td>
<td>Gen1</td>
<td>4Q7?GenMiniature</td>
<td>E1 None</td>
</tr>
<tr>
<td>6</td>
<td>Gen 37:8</td>
<td>110</td>
<td>RP1</td>
<td>None</td>
<td>4Q1 (Gen-Exa) frg. 7a by Puech [2011] 4Q1Pb (4Q164) fr</td>
</tr>
<tr>
<td>7</td>
<td>Gen 37:26–38</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>4Q260(4QGen37–38) k by Fields</td>
</tr>
<tr>
<td>8</td>
<td>Gen 47:2–5</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Compared to the raw data available in the original spreadsheet format, there are some differences to note in the data shown in this overview. Several attributes of the database are excluded:

- **Item Name** is omitted from the overview spreadsheet since it is an aggregate composed of three attributes that are shown in the table, i.e., **DSS F. No**, **DSS F. Name**, and **Content**.
- **Composition** and **Canonical Group** are excluded mainly due to their function in creating visualisations, e.g., Figure 3, and not for explaining the post-2002 fragments themselves.

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13 Our database, https://lyingpendatabases.streamlit.app/Post-2002_Fragments, is part of a bigger knowledge hub that is currently under construction.
4.2 FILTER TEXTUAL CONTENT

In this functionality, users are given a list of post-2002 fragments based on their textual content. This is generated based on the attribute Composition. For example, if the option “1 Enoch” is selected, a list consisting of three items will appear, i.e., 1 En. 7:1–5, 1 En. 8:4–9:3, and 1 En. 106:19–107:1. Each of these items is expandable and will show all the available information, see Figure 6. Attributes lacking information are hidden, except for the category Change of hands. If there is information about Sale (➤), Donation (➢), and Collaboration (→), but not about Asking Price and Purchase Price, the attributes will be shown as “Unknown”.

4.3 VISUALISATION GALLERY

This functionality provides two interactive visualisations generated from the database. The first is a bar chart representing the textual distribution of post-2002 fragments, which is identical to the one shown in Figure 3. The interactive aspect of this chart allows, e.g., removing one or more categories from the figure. This visualisation is made based on the attributes Composition and Canonical Categorisation.

The second visualisation is called a flow- or Sankey diagram, see Figure 7. It is generated from the Sale (➤), Donation (➢), and Collaboration (→) attribute, by populating actors directly involved in a sale and/or donation of post-2002 fragments, excluding collaboration information. This visualisation emphasizes the movement of fragments from one person or institution to another. The width of a line or ribbon is proportional to the number of fragments that are changing ownerships. For example, from this visualisation, we know that the majority of post-2002 fragments were purchased from William Kando. We can also easily see that the largest collection of post-2002 fragments is currently owned by the Schøyen Collection, followed by the Museum of the Bible (MOTB), and the Southwestern Baptist Theological Seminary (SWBTS).

4.4 SEARCH

This functionality provides a global search for the entire database. Given a query, it will show the search results as a list of expandable items, identical to how results are shown in the Filter textual content functionality.

(5) FUTURE DEVELOPMENT

Transitioning from the conventional spreadsheet format to the Streamlit web application represented a shift in data presentation and web interface. In the future, we hope to further...
develop the database by migrating towards the Structured Query Language (SQL) format. With SQL, it is possible to connect our database with other Dead Sea Scrolls databases. This transformation will lead to an enhanced data management system (DBMS), facilitating more robust querying, manipulation, and scalability of handling the data.

**CONCLUSIONS**

The forged post-2002 fragments have had significant implications for research on the Dead Sea Scrolls. We hope that our database—its innovative structure and key features—will open up new vistas for the fields of the Dead Sea Scrolls and Qumran studies. Traditionally, these fields have shown little interest in provenance research (see 3.5; cf. Justnes, 2023) and the (lucrative) market for the Dead Sea scrolls and fragments (see 3.6; cf. Justnes and Kjeldsberg, 2023)—topics that provide important keys to understand the dataset of the post-2002 fragments. In a time where there is increasing awareness about the importance of provenance (see Brodie, Kersel, & Rasmussen, 2023) and how the antiquities trade shapes the field of manuscript studies (Press & Justnes, 2023), it is a paradox that we still do not have comparable data systematised and digitised for the authentic Dead Sea Scrolls. The dataset also has a considerable computational reuse potential, for example, the provenance (cf. 3.5) and change of hands (cf. 3.6) information can serve as a point of departure for an in-depth study of patterns in the provenance records, by representing the involved parties in a connected graph.

Our database has the potential to become a central hub for scholars, researchers, and enthusiasts alike, offering a systematic, accessible, and comprehensive repository for these fragments and associated data. It will streamline research efforts, foster collaboration, and make research data about the post-2002 fragments open access.

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COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR CONTRIBUTIONS

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REFERENCES


