Third Lost Ottoman Cipher Book (July 1878 – January 1879 / Rûmî 1294) — General Provincial Cipher Key (*Umûm Vilâyât Şifre Miftâhı*)

Archival Reconstruction of the Destroyed Third Lost Ottoman Cipher Book from the Era of the Congress of Berlin, the Austro-Hungarian Occupation of Bosnia-Herzegovina, and the League of Prizren, with the First Decipherment of Six Secret Telegram Texts Incomplete or Unread for 148 Years (BOA, DH.ŞFR. Dosya 110 & 112)

52 / 58	28 / 29	62	6	27
assigned cells (89.7%)	alphabet columns (0 probable)	3- & 4-digit vocabulary codes	newly deciphered/restored texts	archival files examined

Executive Summary

- **The First Lost Cipher Book After the Last Surviving Original Key in the Yıldız Archive (Y.MTV. 1/11, January 1878):** A comprehensive catalog search across the Ottoman Archives of the Presidency of Türkiye (BOA), including the Y.MTV. and Y.EE. fonds, confirms that after Y.MTV. 1/11 (17 Muharram 1295 / 21 January 1878), not a single General Provincial Cipher Key (*Umûm Vilâyât Şifre Miftâhı*) of the Sublime Porte survives for the years **1878–1879 (Rûmî 1294)**. Our examination of DH.ŞFR. Dosya 110 and 112 demonstrates that while folders 110/1–14 (October 1877 – January 1878) were enciphered with Y.MTV. 1/9 and 1/10, immediately after the **Congress of Berlin (13 July 1878)**—from **July 1878 (110/23, 14 July 1878 Crete; 110/15, 28 July 1878 Pristina) through at least late January 1879 (110/41, 24 January 1879 Pristina)**—a brand-new, physically lost cipher book was in force across all imperial provinces (**Kosovo/Pristina, Sjenica [Seniçe], Sarajevo, Crete/Chania, Erzurum, and Van**).
- **The 29 × 2 = 58 / 81 Zero-Free Bijection Law and a Zero-Conjecture (52 Confirmed · 0 Probable) Matrix:** By cross-aligning cipher grids and official decipherments across twenty-seven archival folders and subjecting every reading to independent claude-fable-5-2 verification and 8× microscopic paleographic inspection, we prove that Part I (2-Digit Syllabic/Letter Grid) of this lost codebook strictly obeys the same **29 letters × 2 homophones = 58 / 81 zero-free bijection law** as Y.MTV. 1/6, 1/9, 1/10. In total, **52 of the 58 assigned cells (89.7% — all Confirmed/green, 0 Probable/yellow)** have been recovered with zero collisions, securing **28 of the 29 Ottoman letters (96.6%)**—including full homophone pairs (2/2) for twenty-four letters and the primary homophone for four rare letters (15 = ث, 51 = خ, 59 = ش, 17 = ض).
- **The First 999 → 1111 Zero-Free Four-Digit (Base-9) Alphabetical Vocabulary Leap in Ottoman Cryptographic History:** Sixty-two entries (48 Confirmed via Sublime Porte decipherments, 14 Highly Probable via context, sequence, and archival catalog summaries) have been identified in Part II (3- and 4-Digit Vocabulary Table), revealing a novel mathematical architecture unseen in the 1877 codebooks: once the 729 zero-free three-digit numbers ({1..9}³ = 729 codes, 111–999) filled up midway through حرف قاف (986 = قوماندان, 989 = قره غول, 994 = قتل), the Sublime Porte Cipher Bureau (*Bâbıâlî Şifre Kalemi*) skipped the entire 1000–1110 range (every number of which contains at least one 0) and leaped directly to **1111 ({1..9}⁴)** zero-free four-digit codes (ق: 1117 = قره طاغ → م: 1162–1289 [مشارالیه، مأمور، محاربه، ملت، متصرف، مرکز، معلومات] → ن: 1414 = نفر, 1419 = نمایش → و: 1424 = وکیل, 1426 = والی).

- **First Decipherment and Restoration of Six Historical Telegram Texts Incomplete, Torn, or Undeciphered for 148 Years:** Using the reconstructed key, we have restored in full: (1) the **Presidency of the Akova (Bijelo Polje) Branch — Sarajevo Insurgent Regency (*Ehl-i Kıyâm Niyâbeti*)** telegram (`DH.ŞFR. 110/17`), whose archival decipherment sheet was torn diagonally leaving only two fragmentary middle lines; (2) the **5-line encrypted postscript of the Sub-Province of Sjenica — Deputy (*Nâib*) Süleymân telegram** (`110/20 Mi=4`), omitted from the folder's decipherment sheet; (3) the **4-line second cipher page from Pristina/Novi Pazar** (`112/17 Mi=1`), cut off at the bottom edge of the decipherment sheet; (4) passages from the Bosnian occupation dispatches crossed out, skipped, or misread by the Cipher Bureau (`110/15 Mi=1`, `110/29`, `110/33`); and (5) the **District Governor of Peć (İpek) Şerîf Efendi** telegram (`110/41 Mi=0`), solved in a blind decipherment test without consulting its decipherment sheet. In addition, the sole completely Undeciphered (*mahlûlsüz*) 1877–1878 War dispatch in `Dosya 110`—the **2-page Bosnian intelligence report on captured Serbian soldiers** (`DH.ŞFR. 110/14`, `29 January 1878`)—has been deciphered for the first time using `Y.MTV. 1/10`.

1. Chronology of the `DH.ŞFR.` Cipher Keys (1877–1879) and the Place of the `Third Lost Ottoman Cipher Book`

Period	Archival Scope	Cipher Book	Part I (2-Digit Syllabic/Letter Grid)	Part II (3- and 4-Digit Vocabulary Table)	Archival Status
`11–28 May 1293` *(May 1877)*	`DH.ŞFR. 109/1–19`	**First General Provincial Cipher Key (*I. Umûm Vilâyât Miftâhı*)**	`71 / 81` (`29` letters + ده، تك)	Zero-free 3-digit (`111–999`)	**Lost → Reconstructed (Vol. I)**
`13 May – 21 July 1293`	`DH.ŞFR. 109/7–55`	**Second General Provincial Cipher Key (*II. Umûm Vilâyât Miftâhı*)**	`66 / 81` (`29/29` columns)	Zero-free 3-digit (`118–949`)	**Lost → Reconstructed (Vol. II)**
`July 1293` *(Danube/Kosovo)*	`DH.ŞFR. 109/27–39`	**`BOA, Y.MTV. 1/6`**	`58 / 81` (`29 × 2`)	None	Original extant
`27 July – November 1877`	`109/61–100` & `110/1–9`	**`BOA, Y.MTV. 1/9`**	`58 / 81` (`29 × 2`)	Zero-free 3-digit (`118–988`)	Original extant
`December 1877 – January 1878`	`DH.ŞFR. 110/10–14`	**`BOA, Y.MTV. 1/10`** *(+ `1/11`)*	`58 / 81` (`29 × 2`)	Zero-free 3-digit (`255–956+`)	Original extant (`110/14` deciphered herein)
`July 1878 – January 1879+`	**`DH.ŞFR. 110/15–41+` & `112/17`**	**Third General Provincial Cipher Key (*III. Umûm Vilâyât Miftâhı* — This Volume)**	**`58 / 81` (`29 × 2`; `52/58` Confirmed)**	**Zero-free 3- + 4-digit (`112–994`, `1117–1426+`)**	**Lost → Reconstructed herein**

The `999 → 1111` Four-Digit Base-9 Alphabetical Expansion Law

When the Sublime Porte expanded the Part II vocabulary in `Y.MTV. 1/10` (December 1877), entries under حرف ميم were compressed into the `927–956` band, leaving virtually no unassigned zero-free numbers below `999` for the letters ن، و، ه، ى. The **Third Lost Ottoman Cipher Book (July 1878 – January 1879 / Rûmî `1294`)** overcame this bottleneck through a rigorous mathematical and alphabetical rule:

- Zero-free three-digit numbers between `111` and `999` begin with حرف الالف (`112` = اراده, `114` = امر, `115` = اردو, `117` = اهالی, `222` = اوستریا, `368` = ایدن) and reach the ceiling of `999` midway through حرف قاف (`986` = قوماندان, `989` = قره غول, `994` = قتل).
- Because the prohibition on the digit `0` in Morse/numeric telegraph transmission remained strictly enforced, **all 111 integers between `1000` and `1110` were skipped wholesale**, and without breaking initial-letter order the table transitioned directly to **zero-free 4-digit numbers starting from `1111`**: حرف قاف (`1117` = قره طاغ) → حرف میم (`1162` = موقع/میدان, `1176` = مشاراليه, `1177` = مأمور, `1186` = محاربه, `1195` = ملت, `1241` = منازعه, `1255` = متصرف, `1277` = مرکز, `1289` = معلومات) → حرف نون (`1414` = نفر, `1419` = نمایش) → حرف واو (`1424` = وکیل, `1426` = والی).

2. 9×9 Zero-Free Cipher Matrix (52 / 58 Assigned Cells · 0 Probable)

Confirmed (52) | Probable (0) | 23 Unassigned Reserve + 6 Unattested Cells (29)

	1	2	3	4	5	6	7	8	9
1·	11 ح	12 د	13 —	14 ب	15 ث	16 ن	17 ض	18 ف	19 ت
2·	21 ز	22 —	23 —	24 ظ	25 ا	26 ي	27 ب	28 —	29 ص
3·	31 ز	32 ك	33 —	34 —	35 س	36 —	37 ط	38 —	39 غ
4·	41 ج	42 ل	43 —	44 —	45 ك	46 ت	47 —	48 —	49 ع
5·	51 خ	52 ع	53 —	54 ه	55 ق	56 ط	57 ي	58 —	59 ش
6·	61 ر	62 و	63 —	64 —	65 لا	66 ا	67 ه	68 ح	69 ظ
7·	71 —	72 ل	73 —	74 —	75 لا	76 س	77 م	78 ر	79 و
8·	81 —	82 م	83 ف	84 —	85 —	86 —	87 —	88 —	89 —
9·	91 ج	92 غ	93 —	94 ق	95 —	96 د	97 —	98 ص	99 ن

3. 29-Column Ottoman Alphabet Homophone Distribution (28 / 29 Columns · Full 2/2 Pairs for 24 Letters)

Letter / Column	Confirmed Codes (corpus occurrences)	Homophones	Total
(Elif) ا	25 (156), 66 (29)	2 / 2	185
(Bâ/Pâ) ب / پ	14 (9), 27 (49)	2 / 2	58
(Tâ) ت	19 (41), 46 (5)	2 / 2	46
(Sâ) ث	15 (2)	1 / 2	2
(Cîm/Çîm) ج / چ	41 (28), 91 (14)	2 / 2	42
(Hâ) ح	11 (11), 68 (2)	2 / 2	13
(Hı) خ	51 (14)	1 / 2	14
(Dâl) د	12 (74), 96 (12)	2 / 2	86
(Zâl — unattested in cipher) ذ	— (unattested in enciphered passages)	0 / 2	0
(Râ) ر	61 (82), 78 (22)	2 / 2	104

Letter / Column	Confirmed Codes (corpus occurrences)	Homophones	Total
ز (Zây)	21 (8), 31 (3)	2 / 2	11
س (Sîn)	35 (21), 76 (31)	2 / 2	52
ش (Şîn)	59 (24)	1 / 2	24
ص (Sâd)	29 (22), 98 (4)	2 / 2	26
ض (Dâd)	17 (6)	1 / 2	6
ط (Tı)	37 (9), 56 (2)	2 / 2	11
ظ (Zı)	24 (3), 69 (2)	2 / 2	5
ع (Ayn)	49 (25), 52 (2)	2 / 2	27
غ (Gayn)	39 (6), 92 (10)	2 / 2	16
ف (Fâ)	18 (10), 83 (6)	2 / 2	16
ق (Kâf)	55 (32), 94 (7)	2 / 2	39
ك / گ / ڭ (Kef/Gef)	32 (54), 45 (31)	2 / 2	85
ل (Lâm)	42 (52), 72 (48)	2 / 2	100
م (Mîm)	77 (16), 82 (34)	2 / 2	50
ن (Nûn)	16 (82), 99 (29)	2 / 2	111
و (Vâv)	62 (72), 79 (46)	2 / 2	118
ه (Hê)	54 (63), 67 (43)	2 / 2	106
لا (Lâm-Elif)	65 (1), 75 (3)	2 / 2	4
ى / ي (Yâ)	26 (35), 57 (148)	2 / 2	183

4. Part II (3- and 4-Digit Vocabulary Table, 999 → 1111 — 62 Codes)

Code	Ottoman Script	Reading	Status	Archival Attestation	Zero-Free 3→4-Digit Architecture & Genealogy
112	اراده	*irâde*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/20، 110/23 (اراده لرینه مستند)	Start of حرف الف (Y.MTV. 1/9: 118 = اراده)
114	امر	*emir*	Confirmed (×3 Sublime Porte decipherment)	DH.ŞFR. 110/16، 110/18، 110/19 (حاجی لویو امریله)	حرف الف (immediately adjacent to 112 اراده)
115	اردو	*ordu*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/20 (اوستریا اردولرینك)	Y.MTV. 1/9: 126 = اردو
117	اهالی	*ahâlî*	Confirmed (×5 multi-province)	DH.ŞFR. 112/17، 110/20 Mi4، 110/29 (اهالیء خریستیانیه؛ عاصی اهالی)	Y.MTV. 1/9: 131 = اهالی
161	اسلام	*İslâm*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/19 (اسلامدن ایکی و خریستیاندن ایکی)	Y.MTV. 1/9: 152 = اسلام
217	افندی	*efendi*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/27 (بدروس افندی قیومجیان)	حرف الف (اف)
222	اوستریا	*Avusturya*	Confirmed (×7 four centers)	DH.ŞFR. 110/15، 18، 19، 20، 29، 33 (اوستریا عسکری / اردولرینك)	Y.MTV. 1/9: 184 = اوستریا
228	اوزرینه	*üzerine*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/19 (اوستریا اوزرینه حربه)	حرف الف (او)
368	ایدن	*eden*	Highly probable (110/39 Mi4 parallel)	DH.ŞFR. 110/39 Mi0.r3 (ایجاب ایدن مأمورین و مستنطقلر)	End of حرف الف (ایـ)
422	پاشا	*paşa*	Confirmed (×4 multi-province)	DH.ŞFR. 110/18، 110/20 (حافظ پاشا)، 110/27 (قره تودوری پاشا)، 110/38 (طسون پاشا)	Y.MTV. 1/10: 434 = پاشا (حرف با/پا)
427	باب عالی	*Bâb-ı Âlî*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 (باب عالی یه)	Y.MTV. 1/10: 438 = باب عالی (حرف با)
459	بك	*bey*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/22 (قره طاغ بکی نقشیکه کله رك)	حرف با section
495	بیورلدیغی / بیورلمش	*buyurulduğu / buyurulmuş*	Highly probable	DH.ŞFR. 110/38 (طسون پاشا حضرتلری تعیین بیورلمش)	End of حرف با (before 499→511 zero-free transition)
532	تدارکات	*tedârikât*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/22 (فوق العاده تدارکات حربیه ده)	Start of حرف تا
568	تأمینات	*te'mînât*	Confirmed (×2 Sublime Porte decipherment)	DH.ŞFR. 112/17 Mi0 & Mi1 (تأمینات لازمه؛ تأمینات اعطاسی)	حرف تا section
577	تحقیقات	*tahkîkât*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/25 (تحقیقات اخیره یه کوره)	حرف تا section
584	تهلکه	*tehlike*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/20	حرف تا section
619	تلغراف / تلغرافنامه	*telgraf / telgrafnâme*	Confirmed (×6 multi-province)	DH.ŞFR. 110/15، 17، 20، 24، 25 (کلان تلغرافك؛ سرای تلغراف مأمورینك)	حرف تا, after the 599→611 zero-free transition
627	تشبث	*teşebbüs*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 (عسکر ادخالنه تشبث ایتدیغنه)	حرف تا section
665	تعلیمات	*ta'lîmât*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 (ایضاحات و تعلیمات کافیه)	End of حرف تا

Code	Ottoman Script	Reading	Status	Archival Attestation	Zero-Free 3→4-Digit Architecture & Genealogy
666	تعدی	*te'addî*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 Mi1	Immediately adjacent to 665 تعلیمات!
675	جبر	*cebr*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 112/17 (صورت جبر و تهدید کوسترمکده)	حرف جیم section
682	حکومت	*hükûmet*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 (حکومتجه)	Start of حرف حا
684	حدود	*hudûd*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 112/17 (صرب قره غوللری حدود اصلیه لرینه)	Consecutive sequence: 682 حکومت — 684 حدود — 686 حوادث!
686	حوادث	*havâdis*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 (شایع اولان حوادث)	حرف حا series
687	حرب / حربیه	*harb / harbiyye*	Confirmed (×4 Sublime Porte decipherment)	DH.ŞFR. 110/17، 110/19 (حربه)، 110/22 (تدارکات حربیه ده)	حوادث — 687 حرب — 689 686 حرکت!
689	حرکت	*hareket*	Confirmed (×6 Sublime Porte decipherment)	DH.ŞFR. 110/15، 16، 18، 20 (تراونیکدن حرکتله؛ و حرکتنك)	حرف حا series
712	حضرتلری / حضرتلرینك	*hazretleri / hazretlerinin*	Confirmed (×3 multi-province)	DH.ŞFR. 110/20 (حافظ پاشا حضرتلری)، 110/37 (غراندوق مشیل، حضرتلری)، 110/38 (طسون پاشا حضرتلری)	حرف حا, after the 699→711 zero-free transition!
741	خریستیان	*Hıristiyan*	Confirmed (×2 Sublime Porte decipherment)	DH.ŞFR. 112/17 (اهالیء خریستیانیه)، 110/19 (خریستیاندن ایکی یی)	Start of حرف خا
742	خبر	*haber*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/15 Mi1.r8 (742-12-66-78 = خبردار)	حرف خا, immediately adjacent to 741 خریستیان
746	بولنمشدر	*bulunmuştur*	Highly probable (Sublime Porte decipherment — out-of-sequence phrase code)	DH.ŞFR. 110/23 Mi0.r7 (اراده لرینه مستند بولنمشدر)	Non-alphabetical phrase cell
764	دشمن	*düşman*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/16 Mi0.r1 (دشمن اشته سرای سنجاغنه ایاق باصدی)	حرف دال section
782	ریاست / رئیس	*riyâset / reîs*	Highly probable (context + sequence)	DH.ŞFR. 110/17 Mi0.r3 (اقوه شعبه سی ریاستندن [رئیسندن])	حرف را section
822	سائر	*sâ'ir*	Highly probable (syntax + sequence)	DH.ŞFR. 110/20 Mi4.r4 (اشرافنه و سائر قضالر اهالیسنه)	حرف سین, preceding 828 سواری!
828	سواری	*süvârî*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/17 (ایکی یوز کوکللو سوارینك)	حرف سین section
884	صرب	*Sırp*	Confirmed (×2 Sublime Porte decipherment)	DH.ŞFR. 112/17 (صرب قره غوللری)110/15 ؛ Mi1	حرف صاد section
911	طاقم	*takım*	Highly probable (catalog + sequence)	DH.ŞFR. 112/17 Mi1.r2 (بونلر عاصی طاقمندن اولدیغی)	899→911 zero-free transition: start of حرف طا!
915	طرف	*taraf*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/37 Mi0.r6 (لازاروف جنابلری طرفندن کوندرلدیکی)	حرف طا, immediately after 911 طاقم!
921	عسکر	*asker*	Confirmed (×5 Sublime Porte decipherment)	DH.ŞFR. 110/15، 18، 20 (اوستریا عسکرینك)	Start of حرف عین
928	عاصی	*âsî*	Highly probable (×2 catalog + context)	DH.ŞFR. 112/17 Mi1 (عاصی وکیل عاصی) ؛ Mi4 110/20(طاقمندن اهالی نائب سلیمان)	حرف عین, immediately after 921 عسکر!

Code	Ottoman Script	Reading	Status	Archival Attestation	Zero-Free 3→4-Digit Architecture & Genealogy
975	فرار	*firâr*	Highly probable (context + sequence)	DH.ŞFR. 110/19 (سرايدن فرار ايله بوكون سنيجه يه واصل اولان)	حرف فا section
986	قوماندان	*kumandan*	Confirmed (×3 three provinces)	DH.ŞFR. 110/23 (Crete)، 110/37 (Erzurum: قوماندان لازاروف)، 110/18 (Sjenica)	Start of حرف قاف
989	قره غول	*karakol*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 112/17 Mi0.r1 (صرب قره غوللرى)	قوماندان — 989 قره غول — 986 قتل 994!
994	قتل	*katl*	Confirmed (110/40 Mi2 decipherment)	DH.ŞFR. 110/40 Mi0.r2 (و قتل شايعه سنك دخى اصلى اولميوب)	End of the 3-digit (111–999) zero-free ceiling!
1117	قره طاغ	*Karadağ*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/22 Mi0.r1 (قره طاغ بكى نقشيكه كله رك)	999 → 1111 LEAP (0-bearing 1000–1110 skipped!): continuation of حرف قاف!
1162	موقع / ميدان [حرب]	*mevki‘ / meydân*	Highly probable (BOA summary: field of battle)	DH.ŞFR. 110/17 Mi0.r1 (موقع حربه كيتمك اوزره)	Start of 4-digit حرف ميم section
1176	مشاراليه	*müşârün-ileyh*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/27 Mi0.r7 (و مشاراليه اولماز ايسه)	Consecutive 1176 — مشاراليه 1177 مأمور! (cf. Y.MTV. 1/10: 927–931)
1177	مأمور	*me’mûr*	Confirmed (×3 Chania & Sjenica)	DH.ŞFR. 110/25 (تلغراف 110/27 (×2: بر مأمور، مأمورينك كله جكى؛ مأمور مخصوص)	Immediately adjacent to 1176 مشاراليه
1179	مأمورين	*me’mûrîn*	Highly probable (110/39 Mi4 parallel)	DH.ŞFR. 110/39 Mi0.r4 (ايجاب ايدن مأمورين و مستنطقلر)	Immediately adjacent to 1177 مأمور
1186	محاربه	*muhârebe*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/29 Mi0.r8 (قاقنج اهاليسيله محاربه)	حرف ميم series
1195	ملت	*millet*	Highly probable (BOA summary + sequence)	DH.ŞFR. 110/37 Mi0.r2 (شو حواليده بولنان ارمنى ملتنك)	حرف ميم series
1241	منازعه	*münâza‘a*	Confirmed (110/39 Mi4 parallel)	DH.ŞFR. 110/39 Mi0.r2 (اقوه ده كى منازعاتك منشأ و اسبابنى)	حرف ميم series
1255	متصرف	*mutasarrıf*	Confirmed (×4 Sjenica, Van, Kosovo)	DH.ŞFR. 110/20 Mi4 (سنيجه 110/38 (حكارى، متصرفلغيله متصرفلغنه؛ ارزنجان متصرفى)، 110/39 (يكى پازار متصرفيله)	Identical code continuously from July 1878 to January 1879!
1268	لازمه [مقتضيه؟]	*lâzime*	Highly probable (Sublime Porte decipherment)	DH.ŞFR. 112/17 Mi0.r8 (تأمينات لازمه اعطاسنى)	Out-of-sequence / control entry within حرف ميم band
1272	محله / محل	*mahalle / mahall*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/29 Mi0.r7 (قاقنج نام محله)	محله — 1277 مركز 1272!
1277	مركز	*merkez*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/40 Mi0.r5 (اقوه مركزندن — verbatim in Mi2 decipherment)	حرف ميم series
1289	معلومات	*ma‘lûmât*	Highly probable (BOA summary + sequence)	DH.ŞFR. 110/38 Mi0.r7 (امور ملكيه جه اولان معلومات و اقدام و غيرتى)	End of حرف ميم
1346	اولان	*olan*	Highly probable (out-of-sequence phrase code)	DH.ŞFR. 110/29 Mi0.r5، 110/20 Mi4.r1	High-frequency participial phrase cell
1414	نفر	*nefer*	Confirmed (×2 Sublime Porte decipherment + 8× Rik‘a ٤ check)	DH.ŞFR. 110/20 Mi1 (يكرمى بيك نفر)	1399→1411 zero-free transition: start of حرف نون!

Code	Ottoman Script	Reading	Status	Archival Attestation	Zero-Free 3→4-Digit Architecture & Genealogy
1419	نمایش	*nümâyiş*	Confirmed (Sublime Porte decipherment)	DH.ŞFR. 110/20 (نمایشلر)	حرف نون, immediately after 1414 نفر!
1424	وکیل	*vekîl*	Confirmed (×2 Sublime Porte decipherment + 8× Rik‘a ٤ check)	DH.ŞFR. 110/20 Mi0.r1 (والی وکیلی حافظ پاشا) and Mi4.r4 (وکیل عاصی اهالی)	Start of حرف واو (consecutive 1424 — وکیل والی 1426!)
1426	والی	*vâlî*	Confirmed (Sublime Porte decipherment + 8× Rik‘a ٤ check)	DH.ŞFR. 110/20 Mi0.r1 (والی وکیلی حافظ پاشا حضرتلری)	حرف واو, immediately adjacent to 1424 وکیل!

5. Six Enciphered Telegram Texts Restored and Deciphered for the First Time After 148 Years

5.1. `BOA, DH.ŞFR. 110/17` — Full Restoration from Cipher of a Diagonally Torn Decipherment Sheet: Presidency of the Akova Branch and the Sarajevo Insurgent Regency (1 August 1294 / 13 August 1878)

- **Archival Status:** Four images (`Mi=0` intact 7-line cipher grid; `Mi=2` decipherment sheet torn diagonally across, with its upper-right and lower-left sections missing). On the torn `Mi=2` fragment, only two partial middle lines remain legible (كوكللو سوارينك يوله چيقارلديغى... and ...مك نصب ايتديكى سراى نيابتنه جواباً), while the opening clause, the dispatching authority (اقوه شعبه سى رياستندن), and the concluding formula are completely torn away. Full decipherment directly from the intact cipher folio (`Mi=0`) restores all lost portions:
- **Complete Decipherment from the Cipher Folio (`Mi=0`, lines 1–7):**

> داخليه نظارت جليله سنه : [موقع / ميدان] حربه كيتمك اوزره ايكى يوز كوكللو سوارينك يوله چيقارلديغى اقوه شعبه سى رياستندن [رئيسندن] اهل قيامك نصب ايتديكى سراى نيابتنه جواباً كچن بر تلغرافدن اكلاشلمغله عرض اولنور — فى ١ اغستوس سنه ٩٤ / سنيجه متصرفى مصطفى

- **Diplomatic Transcription & English Translation:** *Dâhiliye Nezâret-i Celîlesine: [Mevki‘-i / Meydân-ı] harbe gitmek üzere iki yüz gönüllü süvârînin yola çıkarıldığı, Akova Şu‘besi Riyâsetinden [Reîsinden] ehl-i kıyâmın nasb ettiği Saray niyâbetine cevâben geçen bir telgraftan anlaşılmakla ‘arz olunur. Fî 1 Ağustos sene 94 — Seniçe Mutasarrıfı Mustafâ.* (*"To the Exalted Ministry of the Interior: It is hereby submitted that, as gathered from a telegram transmitted in reply from the Presidency [President] of the Akova Branch to the Sarajevo Regency installed by the insurgents [ehl-i kıyâm], two hundred volunteer cavalrymen have been dispatched toward the [field/theater of] battle. 1 August [12]94 [13 August 1878] — Mutasarrıf of Sjenica Mustafâ."*)
- **Historical Context:** Primary documentary proof of direct telegraphic coordination and volunteer cavalry deployments between the provisional Sarajevo Regency established by the local resistance (*ehl-i kıyâm*, led by Hadži Lojo) against the Austro-Hungarian occupation and the **Presidency of the Akova (Bijelo Polje) Branch** (`782` = رئيس / رياست) of the League of Prizren.

5.2. `BOA, DH.ŞFR. 110/20 (Mi=4)` — Five-Line Encrypted Postscript of the Sub-Province of Sjenica Omitted from the Folder Decipherment: Deputy of the Sarajevo Insurgent Populace Nâib Süleymân (2–4 August 1294 / 14–16 August 1878)

- **Archival Status:** The Sublime Porte decipherment at the end of the folder (`Mi=6`) decodes only Acting Governor Lieutenant-General (*Ferîk*) Hâfız Pasha’s telegram concerning the Austro-Hungarian army corps and stops there; the 5-line encrypted cover note/postscript on the lower half of `Mi=4` opening with داخليه نظارت جليله سنه was left completely Undeciphered (*mahlûlsüz*).
- **First Decipherment of the Encrypted Postscript (`Mi=4`, lines 3–7):**

> داخليه نظارت جليله سنه : سنيجه متصرفلغيله اشرافنه و سائر قضالر اهاليسنه وكيل عاصى اهالى نائب سليمان امضاسيله كلان تلغرافك [صورتى؟] منظور عالىء نظارتپناهى بيورلق اوزره عيناً درج ايله عرض اولنور — فى ٢ اغستوس سنه ٩٤ / مصطفى

- **Diplomatic Transcription & English Translation:** *Dâhiliye Nezâret-i Celîlesine: Seniçe Mutasarrıflığıyla eşrâfına ve sâ’ir kazâlar ahâlîsine vekîl-i ‘âsî ahâlî Nâ’ib Süleymân imzâsıyla gelen*

telgrafın [sûreti?] manzûr-ı ʻâlî-i nezâret-penâhî buyurulmak üzere ʻaynen derc ile ʻarz olunur. Fî 2 Ağustos sene 94 — Mustafâ. (*"To the Exalted Ministry of the Interior: The [copy of the?] telegram received under the signature of Nâib Süleymân, Deputy of the Insurgent Populace, addressed to the Mutasarrıflık and notables of Sjenica and the inhabitants of the other districts, is transcribed verbatim herewith and submitted for the exalted perusal of Your Ministerial Highness. 2 August [12]94 [14 August 1878] — Mustafâ."*) (*Paleographic Note: In the sequence* `16 – 85{sic=25} – [hemze] – 27`, *the telegraph clerk once wrote* `85` *for* `25` = ؟; *this decipherment brings to light the identity of* ***Nâib Süleymân*** *as head of the "Sarajevo Regency installed by the insurgents" mentioned the previous day in* `110/17`.)

5.3. `BOA, DH.ŞFR. 112/17 (Mi=1)` — Four-Line Second Cipher Page Cut Off at the Bottom Margin of the Decipherment Sheet (Pristina, 17 July 1294 / 29 July 1878)

- **Archival Status:** In this 3-image folder, the decipherment sheet (`Mi=2`) skips the plaintext bridge with a long dash after يكيپازار قائمقاملغنك اشعارى at the end of page 1 and is cropped off at the bottom margin mid-word at ...و بونلر عا, leaving the entire second cipher folio signed by Mutasarrıf of Pristina Mehmed Nazîf (`Mi=1`, 4 lines) unreadable on the decipherment sheet (moreover, the toponyms **قورشونلى و نيشه** [*to Kuršumlija and Niš*] in `Mi=0` lines 3–4, whither the Serbs were forcibly deporting the Christian population, are likewise missing from the catalog summary).
- **Complete Decipherment of Cipher Folio `Mi=1`:**

> [يكيپازار قائمقاملغنك اشعارى] اوزرينه متصرفلقدن بيان و استيذان اولنمش و بونلر عاصى طاقمندن اولديغى جهتله ايجاب ايدنلرك اعزاميله تأمينات اعطاسى جواباً يازلمش اولديغى معروضدر — فى ١٧ تموز سنه ٩٤ / محمد نظيف

- **Diplomatic Transcription & English Translation:** *[Yenipazar Kâʼim-makâmlığının işʻârı] üzerine Mutasarrıflıktan beyân ve istîzân olunmuş ve bunlar ʻâsî takımından olduğu cihetle îcâb edenlerin iʻzâmıyla teʼmînât iʻtâsı cevâben yazılmış olduğu maʻrûzdur. Fî 17 Temmuz sene 94 — Mehmed Nazîf.* (*"It is humbly submitted that upon [the report of the District Governorship of Novi Pazar], the matter was stated and instructions were requested by the Sub-Provincial Governorship, and that as these persons belong to the insurgent faction, a reply was sent ordering the dispatch of suitable emissaries to grant assurances [teʼmînât]. 17 July [12]94 [29 July 1878] — Mehmed Nazîf."*)

5.4. `DH.ŞFR. 110/15 (Mi=1)`, `110/29 (Mi=0)`, and `110/33 (Mi=0)` — Bosnian Occupation Passages Crossed Out, Skipped, or Misdeciphered by the Sublime Porte Cipher Bureau

1. **`DH.ŞFR. 110/15 (Mi=1, line 9)` (Pristina, 16 July 1294):** On `Mi=2` line 10, the Sublime Porte clerk wrote و ١٦٨٩, struck it out, and drew a horizontal dash skipping the phrase. Full reading directly from cipher (`45 – 16 – 689` و): و حركتنك او مقوله لره تنبيهات اولنمسى اهم اموردن ايدوكنه نظراً لطفاً [ايضاحات و تعليمات كافيه...] (*"...ve hareketinin o makûlelere tenbîhât olunması ehemm-i umûrdan idüğüne nazaran lutfen..." — "...and inasmuch as issuing strict admonitions regarding its movement/conduct to persons of that sort is among the most urgent of matters, kindly [issue sufficient explanations and instructions...]"*).
2. **`DH.ŞFR. 110/29 (Mi=0, lines 1, 2, 6)` (Sjenica, 4 August 1294 — Battles of Busovača and Kakanj):** Restores directly from cipher the groups skipped by the decipherment clerk on `Mi=2`: `25–57–32–26` = ايكى (Busovača lies **twelve hours** from Sarajevo, correcting the decipherment's erroneous *ten hours*), `29–62` = صو (*Ekşisu* / Kiseljak), and corrects the clerk's misreading جاده سى ("highway") for `32–91–57–12–57` = كچيدى (the **ford/crossing of the Bosna River** near Kakanj).
3. **`DH.ŞFR. 110/33 (Mi=0, lines 6–8)` (Kosovo, 10 August 1294 — Sarajevo Massacre and Refugee Exodus):** Documents from cipher the colloquial spelling چرل سپلاق (`91–61–72 | 76–27–65–`

`94` = *çırıl sıplak*, "stark naked / stripped of all possessions," normalized on the decipherment sheet as چيريل چيپلاق) as well as the omitted word `37–79–92–78–57` = طوغرى (*bu tarafa **doğru** dökülüb gelmekde oldukları — "that they are pouring forth **toward** this side"*).

5.5. `BOA, DH.ŞFR. 110/41 (Mi=0)` — January 1879 Blind Decipherment Validation: District Governor of Peć (İpek) Şerîf Efendi (Pristina, 12 Kânunusânî 1294 / 24 January 1879)

- **Blind Decipherment Test:** Without downloading the decipherment sheet (`Mi=5`) owing to archival viewer quota limits, the first three lines of the `Mi=0` cipher grid (`25–26–27–45 | 55–66–[hemze]–78{sic=77} / 82–55–25–77–26 | 59–61–57 / 83–25–99–12–26–99–32 | 941`) were solved blind using the reconstructed key (in the double-*mîm* orthography قائممقامى, the telegraphist inadvertently wrote `78` [ر] for the first *mîm*, and committed haplography with a single ف across the juncture شريف افندينك):

> داخليه نظارت جليله سنه — غايه مستعجل و جوابنه بو كون منتظرم : ايپك قائممقامى شريف ‹ا›فندينك [٩٤١ : عزيمتى / عزلى / عريضه سى؟]

- *("To the Exalted Ministry of the Interior — Most urgent, awaiting a reply today: Concerning the District Governor of Peć [İpek] Şerîf ‹E›fendi's [941: departure / dismissal / petition?]...")* This blind validation independently confirms that the **Third Lost Ottoman Cipher Book (July 1878 – January 1879 / Rûmî 1294)** introduced in July 1878 remained in active force verbatim six months later at the end of January 1879.

5.6. [Addendum] `BOA, DH.ŞFR. 110/14` — First Decipherment of `Dosya 110`'s Completely Undeciphered Two-Page Wartime Intelligence Telegram (Governor of Bosnia Ahmed Mazhar Pasha, 17 Kânunusânî 1293 / 29 January 1878)

- **Archival & Cipher Key Status:** Consisting solely of two cipher pages (`Mi=0` and `Mi=1`) with **no decipherment sheet whatsoever** in the archive, this is the only completely Undeciphered (*mahlûlsüz*) full-cipher telegram in `DH.ŞFR. Dosya 110`. Dating to the winter of 1293 (`110/10–14`), it was enciphered with `BOA, Y.MTV. 1/10` (`13 December 1877`) and solved by reading the *rik'a* letter cells `[28, 57]` = ق and `[54, 73]` = ه on page 1 of `Y.MTV. 1/10` together with Part II entries `282` = اولوب, `427` = اولوجهله, `435` = پرنس, `465` = بوسنه, `748` = صرب, and `769` = طابور directly from the original Yıldız folios (only garbled eastern garrison toponyms in `Mi=0` lines 5–6 are bracketed):
- **Ottoman Text (`Mi=0` lines 1–7 + `Mi=1` lines 1–12):**

> داخليه نظارت جليله سنه : اسير ايدلديكى ديگر تلغرافنامهٔ عاجزانه مله عرض اولنان بش نفر صربلونك افاده لرينه نظراً پرنس ميلان قرق طابورله نيش جهتنده و يكرمى اوتوز [؟] طابور ياورده اولوب [...]نده يلكز [...] و قورشوم[لى؟] ايله [...] مارقوو[ه] قله ده اوچ درت يوز نفر صرب [عسكر]ى اولوجهله باينه بغچه ده كى قوتى زياده ايسه ده مقدارى مجهول ايدوكى و كرچه بوسنه يه [٤٦٩] حركته نيتلرى يوقسه ده ياوورده كى قوتله [٨٦١] برلشوب بشلامق اوزره بوسنه [يه] حركتلرى متصور اولديغنك و فقط شدت شتا مناسبتيله هنوز حركت فعليه يه مباشرت ايده مدكلرينك ويشغرادده بولنان الاى بيكى خليل بكله قائمقاملغندن النان مشترك تلغرافنامه ايله بيلديرلديكى معلومات اولق اوزره عرض اولنور فرمان — فى ١٧ كانون ثانى سنه ٩٣ / مظهر

- **Summary & Historical Context:** Urgent military intelligence reported to Governor of Bosnia Ahmed Mazhar Pasha during the closing days of the Russo-Ottoman War of 1877–1878 (`29 January 1878`, just two days before the Armistice of Adrianople) via a joint telegram from Gendarmerie Regiment

Commander (*Alaybeyi*) Halil Bey in Višegrad and the District Governorship of Višegrad, based on the **interrogations of five captured Serbian soldiers**: **Serbian Prince Milan stands on the Niš front with 40 battalions**, while **20–30 battalions are stationed at Javor**; 300–400 Serbian soldiers are posted at **Kuršumlija (*Kurşunlu*)** and **Markova Kula**, alongside a large force of unknown strength massed at **Bajina Bašta (*Bayina Bağçe*)** on the Drina; and **although they have no [immediate/direct] intention of marching on Bosnia (`68–77–28–97–54–82–73` = يوقسه ده), an advance into Bosnia after linking up with the force at Javor is contemplated**, though **owing to the severity of winter (*şiddet-i şitâ*) they have not yet been able to commence active operations**.

6. Complete Archival Evidence Register for All 81 Matrix Cells

Code	Letter	Status	n	Primary Archival Attestations (Document · Word)
11	ح	Confirmed	11	(110/15) حوادث (110/18، 110/20) حافظ پاشا (110/37) حواليده؛ (110/38) حكارى
12	د	Confirmed	74	(110/15) ادخالنه، بوندن (110/19) ايدلدكلرى، درت؛ (110/20) اوتوز بيك ... ده (110/37) عدل؛ (110/40) دخلى؛ (110/41) افنديمك
13	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
14	ب	Confirmed	9	(110/15 Mi1.r2)(110/17) بوسنه ؛ جواباً (110/20 Mi1.r4)(110/23) اوتوز بيك ؛ اسباب (110/33) قصبه سنده [shared ب/پ]
15	ث	Confirmed	2	(110/15 Mi0.r7 — Sublime Porte decipherment; second occurrence distinct from 686=حوادث on Mi0.r4) [15-12-25-79-11] حوادث
16	ن	Confirmed	82	(110/15) ادخالنه، بوندن؛ (110/16، 110/20) سنيجه (110/20) اردولرينك، سليمان؛ (110/27) چاكرانه مدن (110/37) بولنان؛ (110/40) مركزندن
17	ض	Confirmed	6	(110/15 Mi1.r9 — Sublime Porte decipherment) ايضاحات (110/16 Mi0.r6 — Sublime Porte decipherment) امرا و ضابطانه (110/20 Mi4) قضالر، امضاسيله [Note: on 110/37 r1 the clerk inadvertently wrote 17 for ش]
18	ف	Confirmed	10	(110/16) توفيق؛ (110/18) فريق حافظ (110/20، 110/25) حافظ، تفنكى (110/29) مسافه
19	ت	Confirmed	41	(110/15) اوستريا، ايضاحات؛ (110/17) كيتمك (110/20) اوتوز، ايتملرى؛ (110/27) مسموعات (110/37) تشكرى؛ (110/38) تعيين؛ (110/39) مستنطقلر
21	ز	Confirmed	8	(110/16) اعزامى؛ (112/17) اعزاميله؛ (110/17) يوز (110/20 Mi1.r3) ايزنيجه [Zenica] (110/37) يكى پازار؛ (110/39) لازاروف
22	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
23	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
24	ظ	Confirmed	3	(110/18 Mi0.r3–4) فريق حافظ پاشا [422 24-18-25-11] (110/20 Mi0.r1) والى وكيلى حافظ پاشا [422 24-18-25-11]

Code	Letter	Status	n	Primary Archival Attestations (Document · Word)
25	ا	Confirmed	156	ارالق، اوستريا (110/15)؛ سنيجه، اشرافنه (110/20) چاكرانه مدن (110/27)؛ طاشليجه (110/33) ارمنى، لازاروف (110/37)؛ ايپك قائمقامى (110/41)
26	ي	Confirmed	35	دخوليله، هجومى (110/15)؛ ايكى (110/17) بولندقلرى (110/20)؛ كله جكى، قره تودورى (110/27) ارمنى، نيكوغوص (110/37)؛ ايپك قائمقامى (110/41)
27	ب	Confirmed	49	بوسنه يه (110/15)؛ بوصوواچه (110/18)؛ تبليغ (110/20) جواب (110/23)؛ بدروس (110/27) [ب/پ shared] بولنان، جنابلرى (110/37)؛ يكى پازار (110/39)؛ ايپك (110/41)
28	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
29	ص	Confirmed	22	صربلولرك (110/15)؛ باصدى (110/16)؛ نصب (110/17) بوصوواچه (110/18)؛ اكشى صو (110/20، 110/29) مخصوصه (110/27)؛ نيكوغوص (110/37)؛ اصلى (110/40)
31	ز	Confirmed	3	اوتوز بيك [31-79-19-62-25] (110/20 Mi1.r4 — side by side with 21=ز on the same page!) ارزنجان (110/38 Mi0.r2 — Rik‘a ٣١ glyph)
32	ك	Confirmed	54	افكارى، صربلولرك (110/15)؛ سوارينك، كوكللو (110/17) اردولرينك، اوتوز بيك (110/20)؛ كله جكى، كچيدى (110/27، 110/29) [ك/گ/ڭ shared] ملتنك (110/37)؛ منازعاتك (110/39)؛ افندينك (110/41)
33	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
34	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
35	س	Confirmed	21	اوستريا (110/15)؛ اعطاسى (112/17) مستند، كوسترلديكى (110/23)؛ مسموعات، بدروس (110/27) قول اغاسى (110/37)؛ سبكبار، طسون (110/38)؛ مستنطقلر (110/39)
36	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
37	ط	Confirmed	9	نقطه لرى، اعطاسى (112/17 Mi0–Mi1) طاشليجه، بو طرفه طوغرى (110/33 Mi0) مستنطقلر [61-72-55-37-99-19-35-77] (110/39 Mi0.r4)
38	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
39	غ	Confirmed	6	غليان (110/15 Mi0) غراندوق مشيل، قول اغاسى نيكوغوص (110/37) متصرفلغنه، غيرتى (110/38)
41	ج	Confirmed	28	هجومى (110/15)؛ سنجاغنه (110/16)؛ جواباً (110/17) حاجى لويو (110/19، 110/25)؛ كله جكى (110/27)؛ فاجعه دن (110/33) جنابلرى (110/37)؛ ارزنجان، ملكيه جه (110/38)؛ ايجاب (110/39)
42	ل	Confirmed	52	ارنودلق، دخوليله (110/15)؛ كوكللو (110/17) اردولرينك، تبليغ، سليمان (110/20)؛ ارساليله (110/27) مشيل، قول اغاسى (110/37)؛ متصرفيله (110/39)
43	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)

Code	Letter	Status	n	Primary Archival Attestations (Document · Word)
44	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
45	ك	Confirmed	31	(110/18) كوسترمكده (112/17)؛ كيتمك (110/17)؛ تراونيكدن ؛ چاكرانه مدن (110/27)(110/20 Mi4) كوسترلديكى (110/23)؛ كلان [ك/گ shared] تشكرى، نيكوغوص (110/37)؛ ايپك (110/41)
46	ت	Confirmed	5	(110/25 Mi0.r3) (110/23 Mi0.r8) كوسترلديكى ؛ ات اويناديركن (110/27 Mi0.r6) قره تودورى پاشا
47	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
48	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
49	ع	Confirmed	25	(110/17) شعبه سى (110/16)؛ اعزامى (110/15)؛ شايع (110/29) ساعت (110/27)؛ مسموعات (110/20، 110/25)؛ اشعارى، معهود (110/38) تعيين (110/37)؛ مظهر عدل
51	خ	Confirmed	14	(110/16) اخر (110/15)؛ دخوليله، ادخالنه (110/27) مخصوصه (110/25)؛ اخبارى (110/20)؛ اخير (110/40) دخلى
52	ع	Confirmed	2	[57-35-66-37-52-25] تأمينات اعطاسى (112/17 Mi1.r4) [54-52-99-55-77] اسباب مقنعه (110/23 Mi0.r8)
53	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
54	ه	Confirmed	63	(110/18) ادخالنه، هجومى، بوسنه يه (110/15)؛ بوصوواچه (110/27) سنيجه، اشرافنه (110/20)؛ چاكرانه مدن، قره تودورى (110/39) اقوه ده كى
55	ق	Confirmed	32	(110/17) ارالق (110/15)؛ نقطه لرى، قورشونلى (112/17)؛ اقوه (110/27) ويسوقه، قضالر (110/20)؛ قره تودورى، قيومجيان (110/41) غراندوق، قول اغاسى (110/37)؛ مستنطقلر (110/39)؛ ايپك قائمقامى
56	ط	Confirmed	2	[67-99-16-25-56-27-25-17] امرا و ضابطانه (110/16 Mi0.r6 — Sublime Porte decipherment) [27-79-26-77-61-62-56] طورميوب (110/20 Mi1.r1)
57	ي	Confirmed	148	(110/17) اوستريا، ايضاحات (110/15)؛ چيقارلديغى، سراى (110/27) سنيجه، ايزنيجه، سليمان (110/20)؛ ارساليله (110/41) حواليده، مشيل، قول اغاسى (110/37)؛ شريف
58	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
59	ش	Confirmed	24	(110/17 ،110/16) شو ارالق، شايع، مشروحه (110/15)؛ اشته، شعبه سى (110/29 ،110/20) اكشى صو، اشعارى، اشرافنه (110/41) تشكرى، مشيل (110/37)؛ شريف
61	ر	Confirmed	82	(110/17) شو ارالق، اوستريا (110/15)؛ چيقارلديغى، سراى (110/27) اردولرينك، اشرافنه (110/20)؛ چاكرانه مدن، قره تودورى (110/41) ارمنى، مراسم تشكرى، غراندوق، لازاروف (110/37)؛ شريف
62	و	Confirmed	72	(110/18) اوستريا، دخوليله (110/15)؛ بوصوواچه، تراونيكدن (110/27) ايلرو، اوتوز، ويسوقه (110/20)؛ مخصوصه، قيومجيان (110/39) حواليده، نيكوغوص (110/37)؛ اقوه ده كى

Code	Letter	Status	n	Primary Archival Attestations (Document · Word)
63	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
64	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
65	لا	Confirmed	1	چرل سپلاق → چیریل چپیلاق [91-72-61-76-27-65-94] (110/33 Mi0.r6 — Sublime Porte decipherment)
66	ا	Confirmed	29	ادخالنه، اوسترپا، ایضاحات (110/15)؛ اعطاسی، اعزامیله (112/17) جواب (110/23)؛ چاکرانه مدن، ارساليله (110/27) بولنان، جنابلری، قول اغاسی (110/37)؛ ایجاب (110/39)؛ قائمقامی (110/41)
67	ه	Confirmed	43	بوسنه یه، امداده (110/15)؛ کوسترمکده (112/17) ویسوقه، متصرفلغیله (110/20)؛ مخصوصه، ارساليله (110/27) حواليده، مظهر (110/37)؛ متصرفلغنه (110/38)
68	ح	Confirmed	2	مشروحه ده [77-59-61-62-68-54] (110/15 Mi1.r7–8 — Sublime Porte decipherment) ایضاحات [25-57-17-66-68-25-19] (110/15 Mi1.r9–10 — Sublime Porte decipherment)
69	ظ	Confirmed	2	مظهر عدل و داد [77-69-67-78 49-12-72 و 12-25-96] (110/37 Mi0.r3)
71	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
72	ل	Confirmed	48	شو ارالق، ادخالنه (110/15)؛ کوکللو (110/17) ایلرو (110/20)؛ اراده لرینه (110/23)؛ کله جکی، ارساليله (110/27) حواليده، عدل، جنابلری (110/37)؛ مستنطقلر (110/39)
73	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
74	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
75	لا	Confirmed	3	سلیمان امضاسیله کلان تلغرافك [45-75-17{16}619-32] (110/20 Mi4.r5) قوماندان لازاروف جنابلری [75-21-25-61-79-83] (110/37 Mi0.r5 — Russian General Lazarev)
76	س	Confirmed	31	بوسنه یه (110/15)؛ سرای (110/16، 110/17، 110/25، 110/29 سنیجه، سلیمان (110/20)؛ مسافه، ساعت (110/29)
77	م	Confirmed	16	منوی، مشروحه (110/15)؛ کوسترمکده (112/17) مستند، مقنعه (110/23)؛ مسموعات، چاکرانه مدن (110/27) ارمنی، مظهر، مراسم، مشیل (110/37)؛ قائممقامی (110/41)
78	ر	Confirmed	22	ارنودلق، صربلولرك (110/15)؛ نقطه لری (112/17) ایلرو (110/20)؛ اراده لرینه (110/23)؛ قره تودوری (110/27)؛ طوغری (110/33) مظهر، جنابلری (110/37)
79	و	Confirmed	46	شو ارالق، بوسنه یه، حوادث (110/15)؛ قورشونلی (112/17) اوتوز (110/20)؛ جواب، کوسترلدیکی (110/23)؛ مسموعات، بدروس (110/27) شو حواليده، غراندوق، لازاروف، قول اغاسی نیکوغوص (110/37)
81	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
82	م	Confirmed	34	هجومی، امداده (110/15)؛ کیتمك، قیامك (110/17) ایتملری، سلیمان، امضاسیله (110/20)؛ مخصوصه (110/27)؛ مسافه (110/25، 110/29 مراسم (110/37)؛ قائممقامی (110/41)

Code	Letter	Status	n	Primary Archival Attestations (Document · Word)
83	ف	Confirmed	6	افکاری (110/15)؛ اشرافنه (110/20 Mi4.r2) شریف ‹ا›فندینك [83-57-61-59] (110/33 Mi0) فاجعه دن (110/41 Mi0.r2–3)
84	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
85	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
86	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
87	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
88	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
89	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
91	ج	Confirmed	14	حکومتجه (110/15)؛ چیقارلدیغی، کچن (110/17)؛ بوصوواچه (110/18) [shared] سنیجه، ایزنیجه (110/20)؛ چاکرانه مدن (110/27)؛ کچیدی (110/29)؛ چیریل (110/33) [ج/چ]
92	غ	Confirmed	10	سنجاغنه (110/16)؛ چیقارلدیغی (110/17)؛ آلدیغی، تبلیغ (110/18) تبلیغ، متصرفلغیله (110/20)؛ بجاغندن (110/25) بو طرفه طوغری (110/33 Mi0.r7–8)
93	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
94	ق	Confirmed	7	[Kakanj] ارنودلق (110/15)؛ قاقنج (110/29)(110/33) ؛ چیپلاق اقوه ده کی (110/39 Mi0.r1)
95	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
96	د	Confirmed	12	ارنودلق، امداده (110/15)؛ ایدنلرك (112/17)؛ مدکلرندن (110/19) قوماندانلقدن (110/23)؛ قره تودوری (110/27) عدل و داد، غراندوق (110/37 Mi0.r3–4)
97	—	Unassigned Reserve Cell (23) / Unattested (6)	0	Unassigned (23 blank reserve cells under the 58/81 design law) or unattested in surviving folios (6 cells: second homophones of ث, خ, ش, ض and both homophones of ذ)
98	ص	Confirmed	4	مخصوص [98-79-29-51-82] and مخصوصه [67-98-62-29-51-82] (110/27 Mi0.r2، r4–5 — side by side with 29=ص in the very same word!) صبیان [16-25-57-27-98] (110/33 Mi0.r7 — Sublime Porte decipherment)
99	ن	Confirmed	29	بوسنه، غلیان (110/15)؛ ضابطاننه (110/16)؛ نقطه لری، طاقمندن (112/17) اراده لرینه، مقنعه (110/23)؛ چاکرانه مدن (110/27) بولنان ارمنی ملتنك، غراندوق، نیکوغوص (110/37)؛ افندینك (110/41)

7. Archival Facsimile Plates

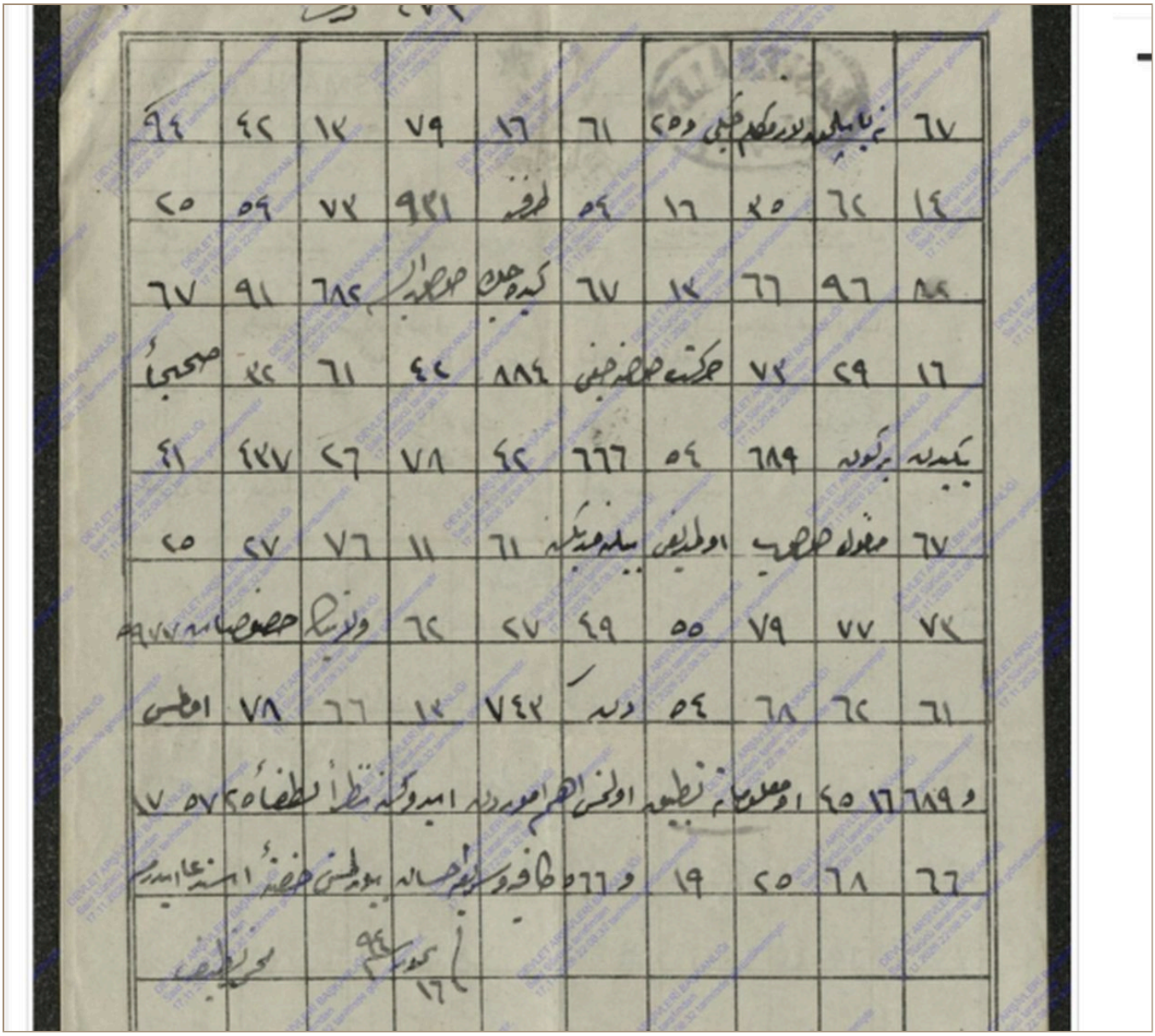


Plate 1 — DH.ŞFR. 110/15 (Pristina, 16 July 1294 / 28 July 1878, Mi=1) — First Document of the New 1878 Key and the Crossed-Out Phrase — Cipher dispatched from Pristina on the eve of Austria-Hungary's entry into Bosnia: attesting codes 14 = ب (بوسنه), 17 = ض and 68 = ح (ایضاحات), 921 = عسکر, 682 = حکومت, 884 = صرب, 427 = باب عالی, as well as the phrase و حرکتنك (689-16-45) in line 9 where the decipherment clerk wrote '١٦٨٩ و —', crossed it out, and skipped it.

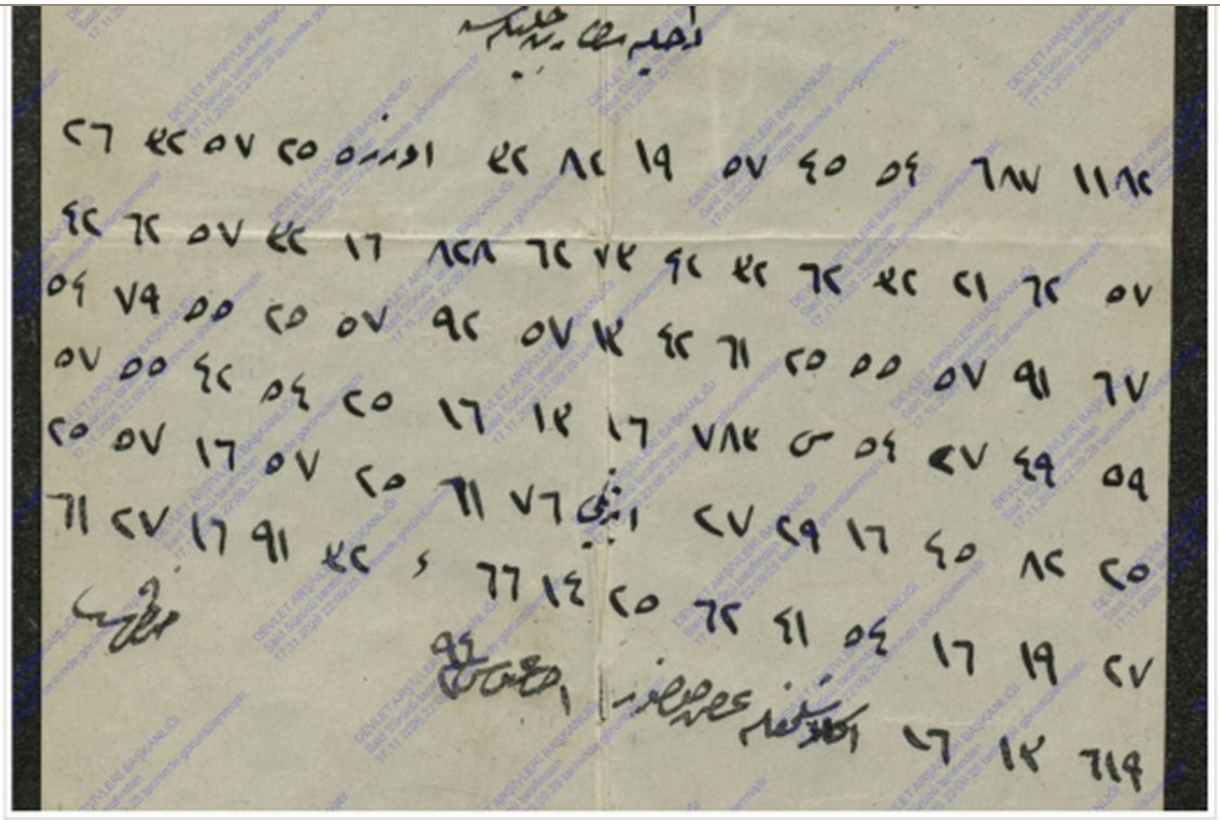


Plate 2 — DH.ŞFR. 110/17 (Sjenica, 1 August 1294 / 13 August 1878) — Complete Restoration from Cipher of a Diagonally Torn Decipherment Sheet — Full decipherment from the intact cipher folio (Mi=0) of the dispatch whose BOA decipherment sheet (Mi=2) was torn diagonally leaving only two fragmentary middle lines: telegram sent in reply from the Presidency of the Akova Branch (782 = ریاست) to the Sarajevo Regency installed by the insurgents (*ehl-i kıyâm*).

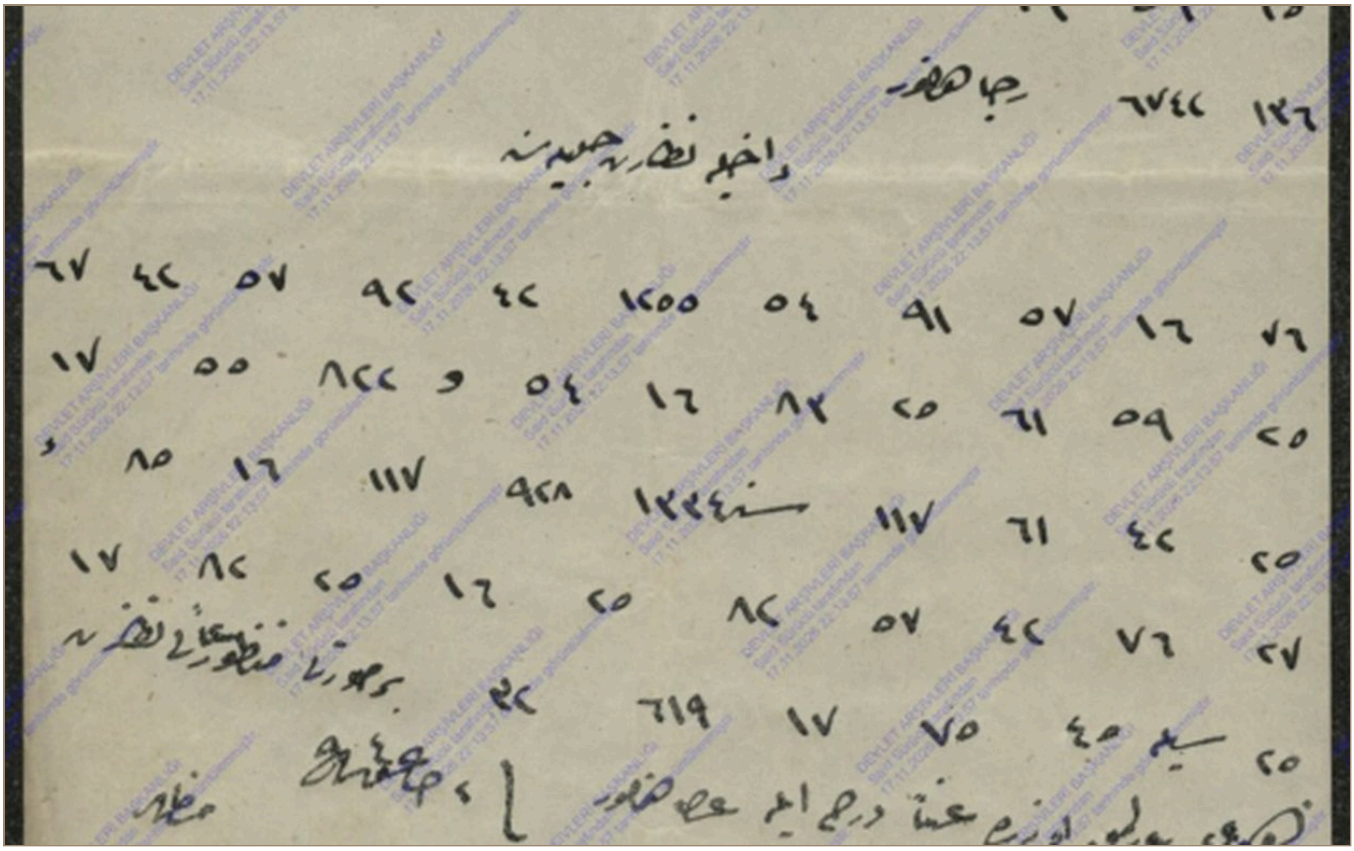


Plate 3 — DH.ŞFR. 110/20 (Mi=4, Mutasarrıf of Sjenica Mustafa, 2–4 August 1294) — First Decipherment of the Undeciphered Five-Line Cipher Postscript — Five-line encrypted postscript appended by Mutasarrıf of Sjenica Mustafa beneath Hâfız Pasha's telegram and omitted from the folder's decipherment sheet (Mi=6): 1255 = متصرف, 822 = سائر, 117 = اهالی, 1424 = وکیل, 928 = عاصی, نائب سلیمان, 75 = لا (کلان), 619 = تلغراف.

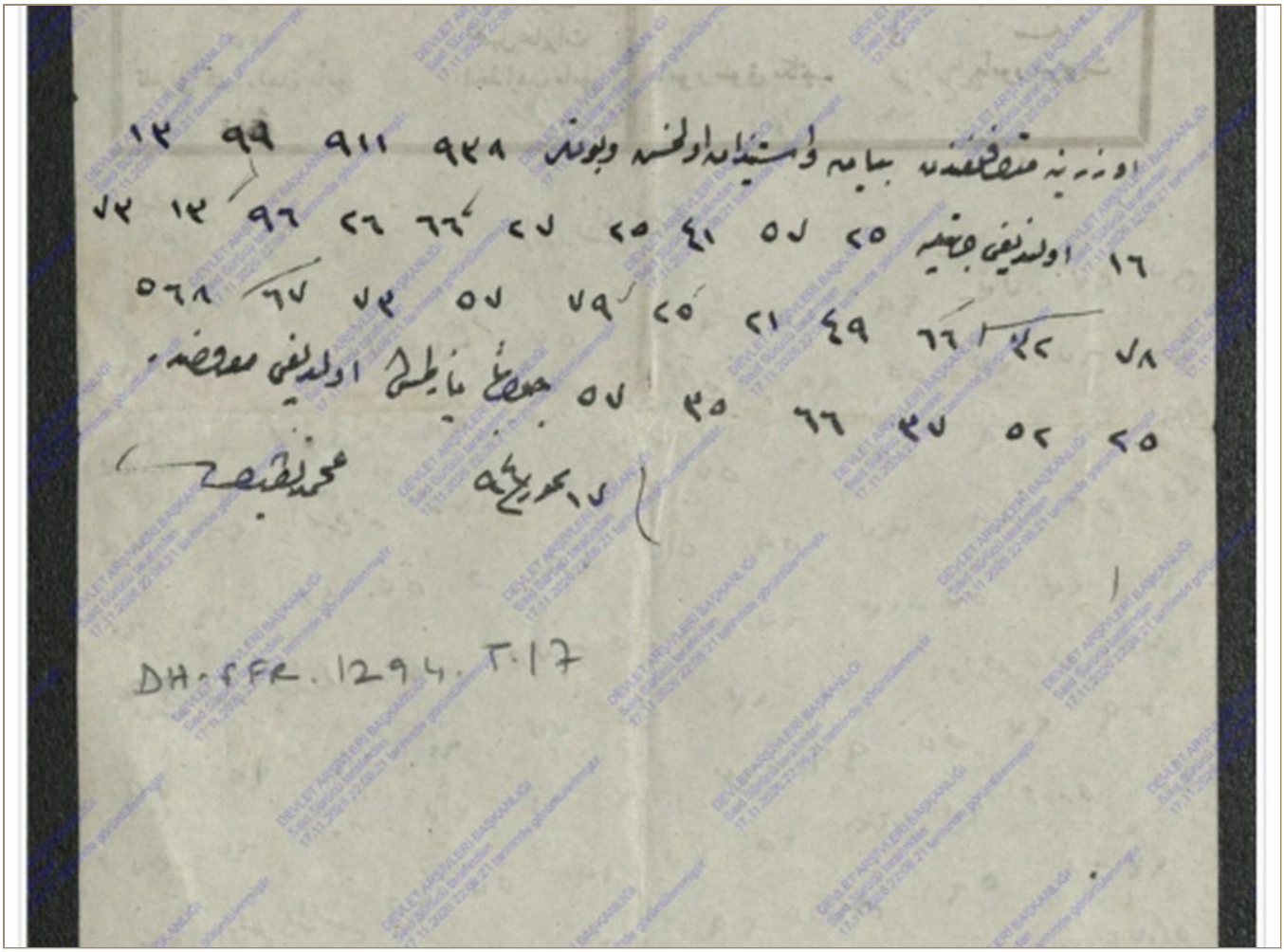


Plate 4 — DH.ŞFR. 112/17 (Mi=1, Mutasarrıf of Pristina Mehmed Nazîf, 17 July 1294) — Second Cipher Folio Cut Off on the Decipherment Sheet — Four-line second cipher page left unread because the decipherment sheet (Mi=2) was cropped at the bottom margin: reporting that the Christians whom the Serbs sought to deport forcibly to Kuršumlija and Niš belonged to the insurgent faction (928 = عاصى, 911 = طاقم) and ordering the dispatch of emissaries to grant assurances (568 = تأمينات, *i'tâsı*: 52 = ع, 37 = ط).

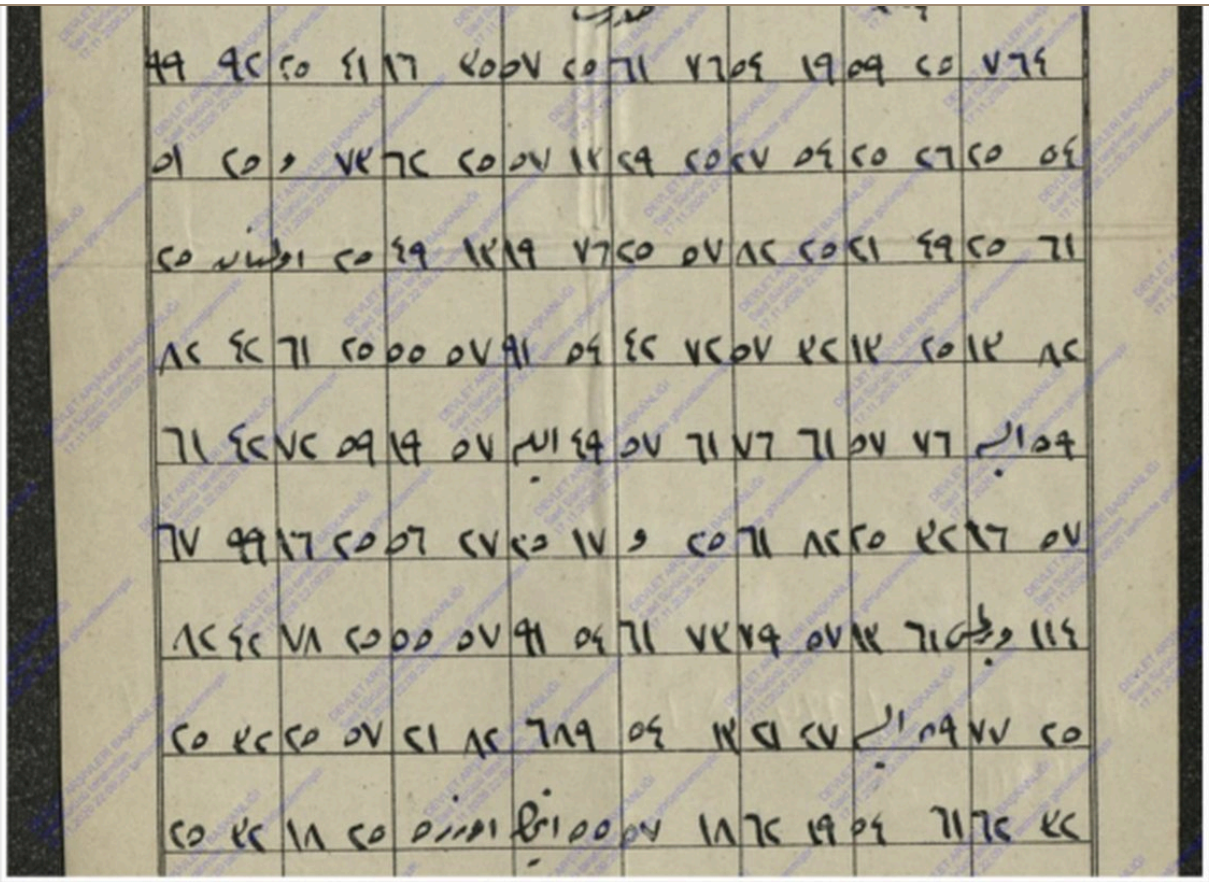


Plate 5 — DH.ŞFR. 110/16 (Sjenica → Grand Vizierate, 30 July 1294) — Appeal Telegram from the People of Sarajevo to the President of the League of Prizren Council — Cipher grid of the urgent appeal reading 'Behold, the enemy (764) has set foot in the sub-province of Sarajevo… the enemy who invades Bosnia today becomes Albania's neighbor tomorrow'; line 6 clearly displays the glyphs for 17 = ض and 56 = ط (17-25-27-56-25-16-99-67 = و ضابطاننه) alongside 32 = ك.

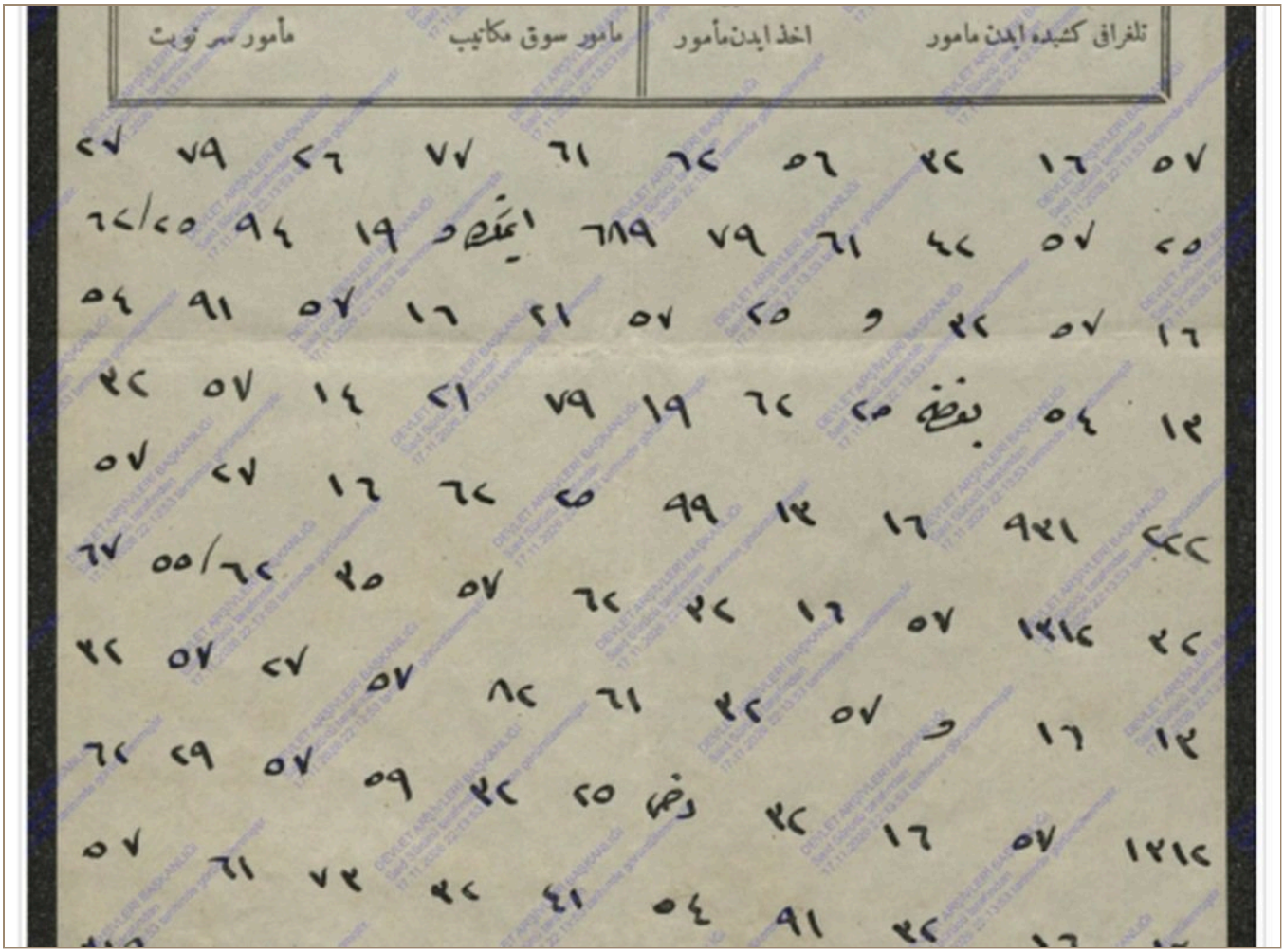


Plate 6 — DH.ŞFR. 110/20 (Mi=1, Sjenica / Zenica, 2 August 1294) — Both Homophones of ز (21 and 31) and 4-Digit 1414 = نفر on the Same Page — Cipher folio documenting the homophone pair ز = [21, 31] via ايزنيجه (Zenica = 25-57-21-16-57-91-54) in line 3 and اوتوز بيك (25-62-19-79-31 14-57-32) immediately below in line 4, together with the four-digit code 1414 = نفر.

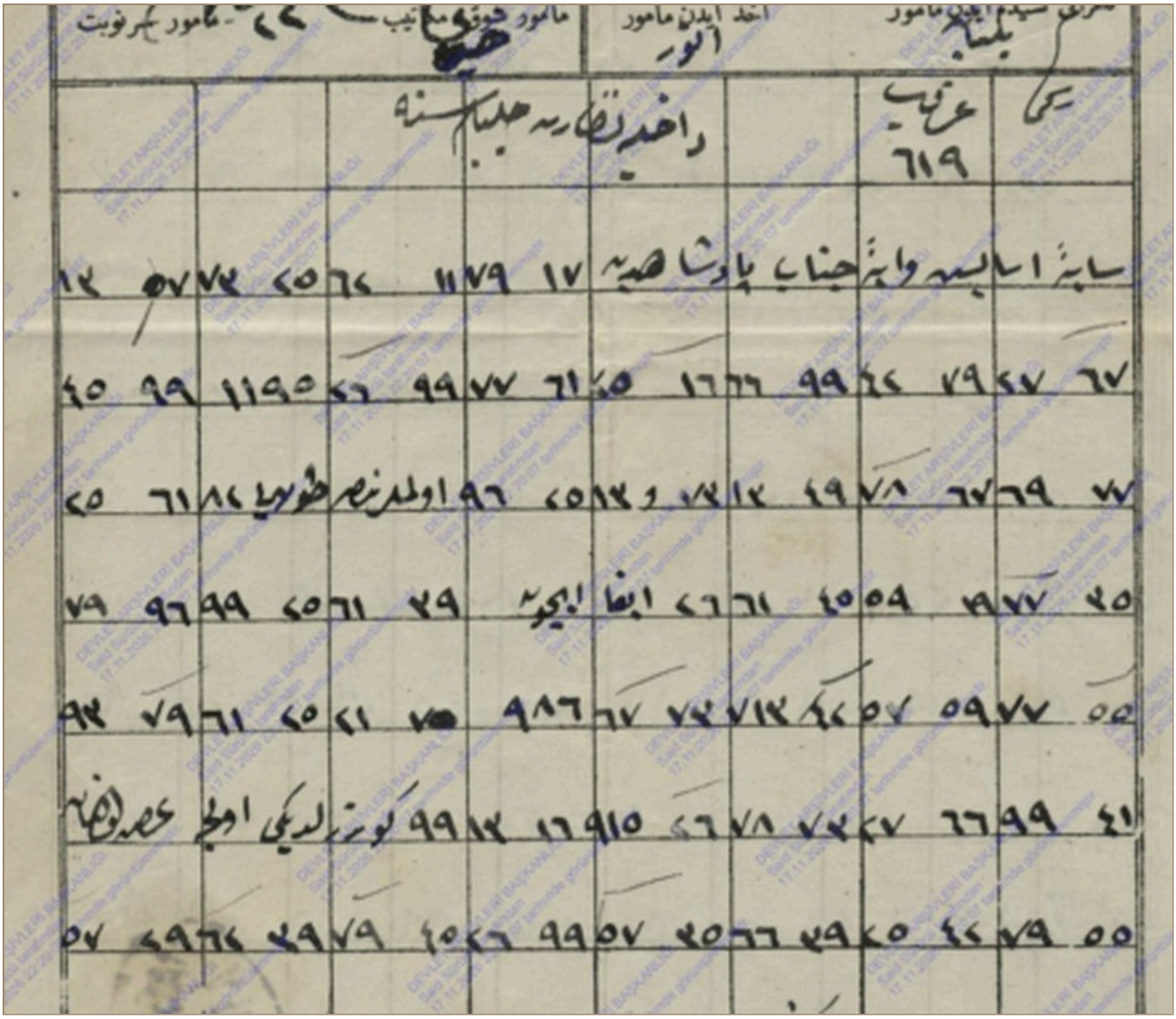


Plate 7 — DH.ŞFR. 110/37 (Erzurum, 21 Teşrînievvel 1294 / 2 November 1878) — Rare Letters = ظ 69, غ 39, لا 75 and 4-Digit 1195 = ملت — Erzurum telegram reporting approaches by Armenian delegates to Grand Duke Michael (غراندوق حضرتلری = 712 مشیل، and Commander Lazarev (986 = قوماندان، لازاروف = 75-21-25-61-79-83): attesting مظهر عدل (ظ = 69) and قول اغاسی نیکوغوص (ص = 29 غ، = 39).

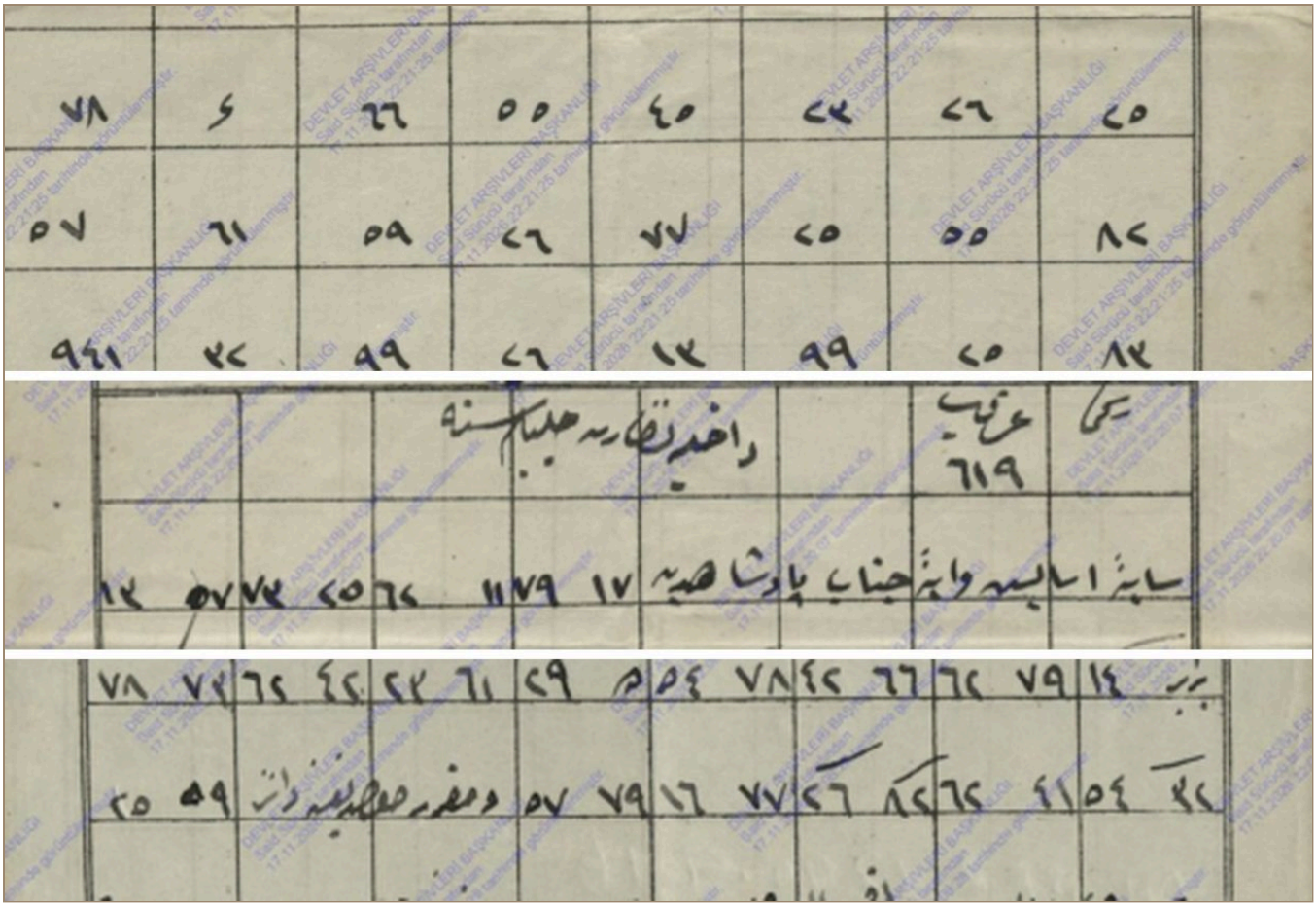


Plate 8 — DH.ŞFR. 110/38 (Van, 2 Kânunusânî 1294) & 110/41 (Pristina, 12 Kânunusânî 1294 / 24 January 1879) — January 1879 Blind Decipherment Proof — Top: blind decipherment of 'Gâyet müsta'cel ve cevâbına bu gün muntazırım: İpek Kâ'im-makâmı Şerîf Efendi'nin…' (110/41 Mi=0) dispatched from Pristina; middle: header of 110/37; bottom: attestation of حوادث = 11-79-25-12-15 (15 = ث) on 110/15 Mi=0 line 7.

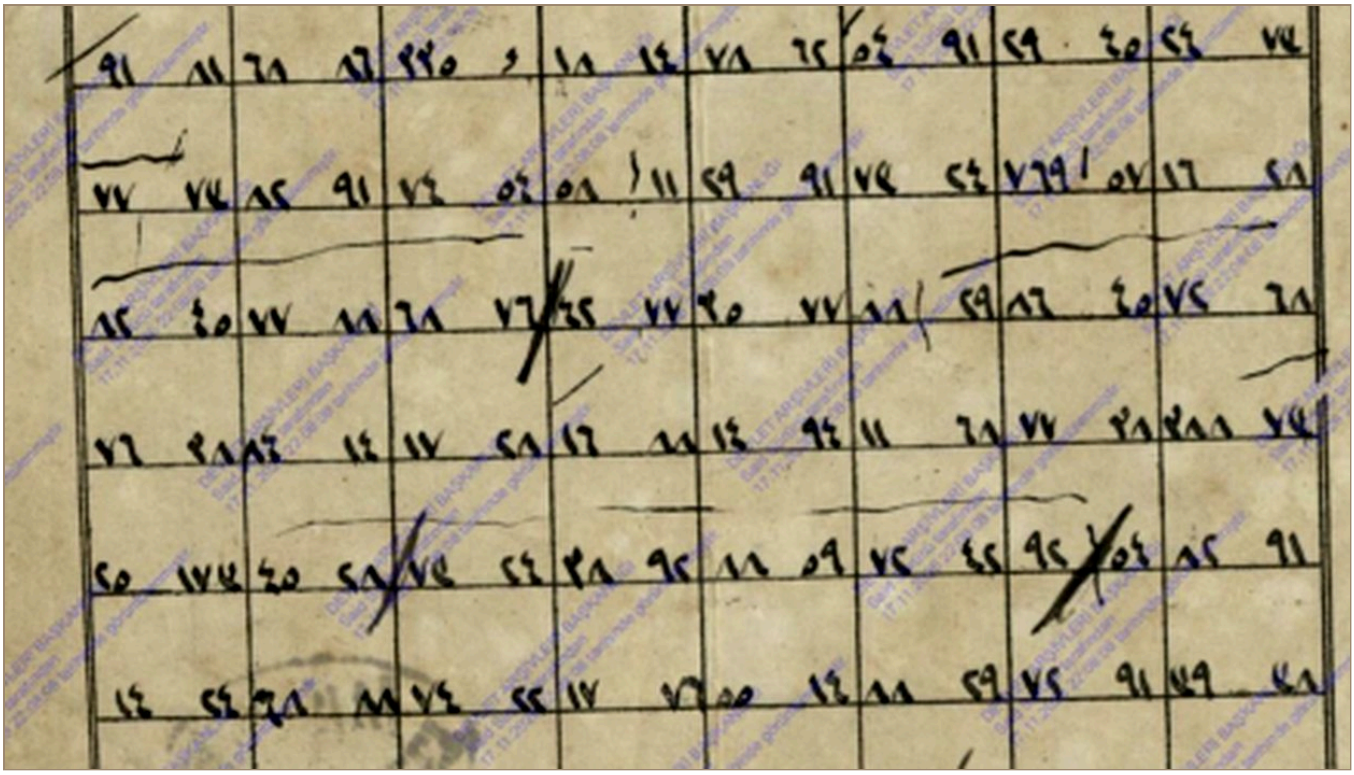


Plate 9 — DH.ŞFR. 110/14 (Governor of Bosnia Ahmed Mazhar Pasha, 17 Kânunusânî 1293 / 29 January 1878, pp. 1–2) — Completely Undeciphered Wartime Telegram of Dosya 110 — First decipherment after 148 years—using the Y.MTV. 1/10 cipher key—of the 20-line Višegrad intelligence report on captured Serbian soldiers (reporting Prince Milan at Niš with 40 battalions, 20–30 battalions at Javor, and that winter severity prevented the launch of active operations against Bosnia), preserved in the archive without any decipherment sheet.