

PREMIERE IN DEN ALPEN **EINE STUDIE, DIE GENETISCHE** **GENEALOGIE MIT** **MITTELALTERLICHER** **GESCHICHTE UND** **GENEALOGIE VERBINDET**

Umfassender Überblick über die Y-DNA der im 13. Jahrhundert
in den Tälern des Trient und der Eau Noire lebenden Familien

Finhaut, Salvan, Trient, Vernayaz, Wallis (Valais), Schweiz
Vallorcine, Haute-Savoie, Frankreich

Von Raymond Lonfat



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Von Raymond Lonfat¹

¹. Bürgerlicher Medienvist (Citizen Scientist) im Bereich Mediävistik. Ich bin nicht bei FamilyTreeDNA angestellt und erhalte von diesem Unternehmen keine Vergütung. Ich bin ehrenamtlich tätig und habe einen Teil meiner Freizeit und meiner Ressourcen darauf verwendet, durch mittelalterliche Forschung, genetische Tests und Analysen Informationen über die alten väterlichen Vorfahren der Familien aus den Tälern des Trient und der Eau Noire zu finden und zu bestimmen – Finhaut, Salvan, Trient, Vernayaz, Wallis (Valais) in der Schweiz, und Vallorcine (Argentièr), Haute-Savoie in Frankreich. (www.vallee-trient.ch).

Titelbild: Das Wolkenmeer umhüllt das Trienttal, so wie der Nebel der verlorenen Erinnerung die historische Wirklichkeit verschleiert... Vor dem Aufkommen der Genomik.

TEIL I²

MITWIRKENDE³

Nicolas Carrier⁴, Iain McDonald⁵, Dave Vance⁶

Dieser Artikel richtet sich an ein breites Publikum.

Dieser Text ist aus dem Englischen übersetzt, das maßgeblich ist.

2. Die Teile II, III, IV... XXII werden die Analyse von 51 Familien, gruppiert in 21 Cluster, umfassen.

3. In alphabetischer Reihenfolge. Der Beitrag zahlreicher Administratoren verschiedener Haplogruppen- und Subhaplogruppen-Projekte findet sich hauptsächlich in den Teilen II, III, IV... XXII.

4. Professor für mittelalterliche Geschichte, Universität Lyon 3.

5. Ehrenamtlicher Administrator des Y-DNA-Projekts der Haplogruppe R-U106, PhD, Astrophysiker, Autor von *Phylogeography of R-U106*, 2026. ORCID iD 0000-0003-0356-0655.

6. General Manager von FamilyTreeDNA.



Trient und die Ankunft am Col de la Forclaz
im 19. Jahrhundert.

ZUSAMMENFASSUNG

Acht Jahrhunderte Kontinuität: die erste Y-DNA-Studie, verankert in mittelalterlichen alpinen Archiven.

Während autosomale Verwandtschafts-DNA über die Generationen hinweg allmählich verblasst, ermöglicht das Y-Chromosom (Y-DNA), nahe Verwandte und weit zurückliegende patrilineare Abstammungslinien zu identifizieren und dadurch jüngste gemeinsame Vorfahren (Most Recent Common Ancestors, MRCA), nahe oder entfernte, auf der väterlichen Linie zu lokalisieren. Familiennamen, die seit der Mitte des 13. Jahrhunderts manchmal identisch geblieben sind, haben sich im Laufe der Zeit möglicherweise mehrfach verändert. Bei dieser Art von Analyse ist es unerlässlich, ihre Entwicklung präzise nachzuvollziehen. Ebenso ist ein fundiertes Verständnis des historischen Kontexts, in dem die untersuchten Familien lebten, sowie ihrer sozialen Stellung, entscheidend, um eine solche Studie sachgerecht durchzuführen.

Erstmals in den Alpen wurde dank der Erhaltung wesentlicher Archive aus dem 13. und frühen 14. Jahrhundert im Jahr 2010 ein Buch veröffentlicht, das umfassend die Anfänge der mittelalterlichen Geschichte aller Familien einer bestimmten Region nachzeichnet: der Täler des Trient und der Eau Noire⁷. Die Verbindung dieser Studie mit der Genomik, einer sich rasant entwickelnden Wissenschaft, ermöglicht einen Vergleich zwischen den mittelalterlichen Genealogien – die oft ungenau sind (Geburts-, Heirats- und Sterberegister existieren im untersuchten Gebiet erst ab 1600) – und den durch Genomik und Y-DNA-Ergebnisse aufgedeckten Familien, insbesondere den Makro-Familien. Dies bietet einen beispiellosen Einblick in die genetische Geschichte und die Migrationen innerhalb dieser Alpenregion.

Diese Studie präsentiert eine vollständige und erschöpfende Bestandsaufnahme der Y-DNA von 51 heutigen Familien, deren patrilineare Vorfahren, wie in mittelalterlichen Archiven belegt, bereits im 13. Jahrhundert in diesen Tälern ansässig waren. Wir analysierten die Y-DNA 700 von mehr als 200 Teilnehmern⁸, und wählten davon über 150 aus, die alle über unabhängige, zwischen 1200 und heute etablierte väterliche Linien von diesen Familien abstammen.

Unsere Forschung bestätigt die gemeinsame Vererbung (Ko-Transmission) von Y-Chromosomen und Familiennamen innerhalb dieser Linien, wodurch wir für jeden Familiennamen einen entsprechenden Y-Haplotyp definieren können. Wir haben eine solide Datenbank aufgebaut, indem wir jeden Teilnehmer auf bis zu 838 Y-STRs genotypisierten und sie mit dem weltweit größten Y-DNA-Haplobaum, aus der umfangreichen Datenbank von FamilyTreeDNA, abglichen.

7. Vgl. Bibliographie, Raymond Lonfat, Bd. I, *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349*, Salvan, Finhaut, Vernayaz. 2010. Raymond Lonfat, Bd. II, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349*, Salvan, Finhaut, Vernayaz. 2010. Raymond Lonfat, Bd. III, *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475*, Salvan, Finhaut, Vernayaz. 2021 (Unveröffentlicht). Raymond Lonfat, Bd. IV, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475*, Salvan, Finhaut, Vernayaz. 2021 (Unveröffentlicht).

8. Wir mussten Familien testen, die in einigen Dörfern rund um die Täler des Trient und der Eau Noire lebten, um lokale Familien zu identifizieren, die im Mittelalter möglicherweise unbemerkt geblieben sind und die unter anderen Familiennamen bis heute fortbestehen.

Wir werden sie später zudem mit mehr als 650 Teilnehmern des Wallis-Projekts (Valais), Schweiz, vergleichen. Wo relevant, kann diese Studie künftig durch die bereits verfügbaren autosomalen und mitochondrialen DNA-Marker (mt-DNA) ergänzt und untermauert werden.

Die 51 Familien sind in 21 Cluster unterteilt. Zahlreiche Makro-Familien wurden identifiziert, darunter zwei mit neun Familiennamen und mehrere mit vier oder fünf. Jeder Cluster wird in einem eigenen Dokument behandelt, das einen historischen Rückblick auf das Mittelalter, eine anonymisierte Darstellung der durchgeführten Tests, den Vergleich der genetischen Ergebnisse mit der mittelalterlichen Genealogie, die Suche nach nahen Verwandten außerhalb der beiden Täler sowie den Vergleich mit alter Y-DNA enthält. Die Namensdiskontinuitäten (Surname Discontinuity Events, SDE) im Laufe der Jahrhunderte werden präzise dokumentiert, wodurch die Korrelation zwischen der patrilinearen Y-DNA und dem endgültigen Familiennamen sichtbar wird. Wir bestimmen die jüngsten gemeinsamen Vorfahren (MRCA) zu verschiedenen Zeitpunkten. Wir stellen diese detaillierten Informationen zu jeder spezifischen Sub-Haplogruppe vor, die diese größeren familiären Strukturen umfasst, und bieten damit bemerkenswerte Hinweise auf die Zeit, in der diese gemeinsamen Vorfahren lebten, die Region, in der sie ansässig waren, und folglich die letzten Migrationsbewegungen ihrer Nachkommen.

Diese Arbeit bietet das erste Panorama der genetischen Landschaft und der übergeordneten Haplogruppenstruktur innerhalb dieser beiden Alpentäler.

*"Es ist lebendige Geschichte, die Menschen direkt mit ihren Vorfahren aus dem 13. Jahrhundert verbindet und die Gründungsgeschichten der Gemeinschaft durch moderne Wissenschaft bestätigt"*⁹.



Um 1900, ein Weiler des Dorfes Trient mit dem wasserbetriebenen Sägewerk.

⁹ Christian Rottensteiner (Forscher für Alpenpopulationen: Phylogenetik und Haplogruppen, Admixture und Geschichte; ORCID iD 0000-0002-3069-2154) hat die Struktur und Zusammensetzung eines der ersten derzeit entstehenden Cluster überprüft. Sein Beitrag war von großem Wert.

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I • EINLEITUNG

DAVE VANCE¹⁰

Ambrose Bierce sagte einst mit Ironie, Genealogie sei nichts anderes als *“ein Bericht über die Abstammung von einem Vorfahren, der sich kaum die Mühe machte, seine eigene zurückzuverfolgen”*. Für jeden, der versucht, eine Familienlinie durch die schroffen, grandiosen Gipfel der Alpen zurückzuverfolgen, ist ein rein dokumentarischer Ansatz das sichere Rezept für ein genealogisches Rätsel, wenn nicht gar für eine leichte existenzielle Krise. Die Dokumente wurden von Menschen verfasst, die uns nicht vorausahnten, in Sprachen, die sich seither gewandelt haben, von Schreibern, deren Rechtschreibung man bestenfalls und recht höflich als kreativ-eigenwillig bezeichnen kann.

An so tief abgelegenen Orten wie den Tälern des Trient und der Eau Noire genügt ein dokumentierter Stammbaum nur selten für sich allein. Die Kirchenbücher für Geburten, Eheschließungen und Sterbefälle reichen in dieser Region oft nicht über das späte Mittelalter hinaus zurück, wodurch einige der interessantesten Jahrhunderte von vornherein ausgelöscht sind. Und selbst wenn ein Forscher das Glück hat, eine alte Urkunde oder ein Steuerregister aufzuspüren, erfordert deren Verständnis eine solide Kenntnis der lokalen kulturellen Normen und der besonderen Bewegungen der Teilbevölkerungen durch diese engen Täler. Selbst während der entscheidenden Periode, in der sich die Familiennamen in der Region festigten, konnten mittelalterliche Alpenbauern, wie in vielen anderen Regionen der Welt zu jener Zeit, ihren Familiennamen zwei- oder dreimal innerhalb desselben Lebens ändern, ganz zu schweigen von der Verwendung von Namensvarianten, die für heutige Forscher nicht immer offensichtliche Ableitungen darstellen.

Ohne ein fundiertes Verständnis der lokalen kulturellen Normen und Praktiken könnten die traditionellen dokumentarischen Beweise allein den unvorsichtigen Forscher munter direkt an den Rand einer Alpenklippe führen. Und selbst die bis heute erhaltenen kulturellen und genealogischen schriftlichen Zeugnisse reichen möglicherweise nicht aus, um die Verwirrung zu entwirren und fundierte Schlussfolgerungen über die Verbindungen zwischen unseren Vorfahren zu ziehen. Genau hier kann DNA – jede DNA, ob Y-DNA, mitochondriale DNA oder sogar autosomale DNA – unseren Weg durch dieses Durcheinander erhellen.

Genau aus diesem Grund stellen die in diesen isolierten Schweizer Tälern ansässigen Familiengruppen ein derart ideales Forschungsfeld dar. Ihre unerbittliche Geografie begünstigte eine tiefgreifende physische und kulturelle Isolation, die den externen Genfluss über viele Jahrhunderte hinweg stark einschränkte. Diese Täler funktionierten gewissermaßen als natürliche Laboratorien, die alte Y-DNA-Linien und die mit ihnen verbundenen Gründerfamiliennamen mit einer

10. Dave Vance, General Manager von FamilyTreeDNA.

Treue bewahrten, die in den kosmopolitischeren, stärker frequentierten Niederungen, wo die Linien kontinuierlich verwässert und durchmischt wurden, unmöglich gewesen wäre.

Die Studie PREMIERE IN DEN ALPEN stellt in dieser Hinsicht ein wahres Meisterstück im Umgang mit einer komplexen Geschichte dar. Sie stärkt die konsequente Anwendung strukturierter Methoden und weigert sich höflich, die mittelalterliche Dokumentation für bare Münze zu nehmen. Durch die Testung von mehr als 200 männlichen Nachkommen mit dem Big-Y-700-Test, dem höchstauflösenden verfügbaren Verfahren, erreicht das Projekt eine sorgfältige und beispiellose Verbindung moderner genetischer Genealogie mit traditioneller historischer und onomastischer Forschung. Die zugrunde liegende These ist einfach: Um zu vollständig fundierten Schlussfolgerungen zu gelangen, müssen die beiden Disziplinen miteinander verwoben werden, statt isoliert betrachtet zu werden. Die Genetik liefert die biologische Grundwahrheit; die mittelalterliche Dokumentation liefert den kulturellen Kontext, der uns zeigt, was diese Wahrheit tatsächlich bedeutet. Keine der beiden allein genügt.

Letztlich ist PREMIERE IN DEN ALPEN ein überzeugendes Beispiel dafür, wie die genetische Familienanalyse von Familien und Mikropopulationen unsere Arbeit verändern kann. Durch die Nutzung der Y-DNA, dem ultimativen Hüter patrilinearer Aufzeichnungen, und die Verbindung dieses genetischen Nachweises mit traditionellen dokumentarischen Belegen können wir unser Verständnis der Beziehungen zwischen Vorfahren über viele Generationen hinweg erweitern. Dieser Ansatz erlaubt es uns, mit diesen Vorfahren auf eine weitaus sicherere und weitaus intimere Weise in Verbindung zu treten, als dies je möglich wäre, wenn man sich allein auf die spärlichen und brüchigen dokumentarischen Belege verließ, die den Verwüstungen der Zeit, des Feuers, der Überschwemmungen und des gelegentlich unaufmerksamen Archivars getrotzt haben. Werke wie PREMIERE IN DEN ALPEN lehren uns daher, leiten uns, spornen uns an und fordern uns letztlich heraus, unseren Forschungshorizont auf weitere Bereiche auszudehnen¹¹.



11. Künftig zu ergänzen und zu untermauern durch autosomale und mitochondriale Marker, sofern diese aussagekräftig sind.

II • VON GENEN ZU REISEWEGEN: MIGRATIONSMUSTER AUS DER DNA EXTRAHIEREN

IAIN
MCDONALD¹²

Vom Haplotyp zur Heimat: wie die Y-DNA die Landkarte der Migrationen neu schreibt.

Um dem fachfremden Leser zu helfen, sich diesen Perspektivwechsel zu eigen zu machen, habe ich Iain McDonald eingeladen – ehrenamtlicher Administrator des R-U106-Projekts und Autor des Standardwerks zu dessen Phylogeografie –, in seinen eigenen Worten zu erklären, wie die genetische Genealogie Migrationen dort rekonstruiert, wo die Papierarchive schweigen.

Die genetische Genealogie stellt eine wirkungsvolle Ergänzung zu den traditionellen genealogischen Methoden dar, doch ihre Anwendung erfordert einen Mentalitätswandel gegenüber der klassischen genealogischen Sichtweise.

Zunächst einmal verfolgt die genetische Genealogie den genetischen Stammbaum, nicht den sozialen. Nehmen wir das Beispiel eines Findelkindes, das vor einer Haustür ausgesetzt und von einer Familie großgezogen wird, die nicht seine eigene ist. Möglicherweise existiert keine schriftliche Aufzeichnung einer solchen Adoption, sodass ein traditioneller Stammbaum die Adoptiveltern als die tatsächlichen Eltern ausweisen könnte, während ein genetischer Stammbaum seine biologischen Eltern zurückverfolgen wird. Dies kann sich als sehr nützlich erweisen, um einen Stammbaum zu korrigieren – nicht nur bei verborgenen Adoptionen, sondern auch bei falsch zugeordneten Eltern, wenn Genealogien fehlerhaft oder unvollständig sind. Solche Fälle betreffen nicht nur genealogische Aufzeichnungen von schlechter Qualität, sondern auch die Identifizierung von Kindern aus früheren Ehen usw.

Dies kann sich auch als nützlich erweisen, um außerehelich geborene Kinder aufzuspüren. Es sollte uns nicht überraschen, dass unsere Vorfahren ebenso der Fleischeslust zugeneigt waren wie die Menschen heute, und in Ermangelung zuverlässiger Verhütung verdankten zahlreiche Kinder ihre Existenz einem heimlichen Stelldichein hinter einem Heuhaufen. Genetische Tests decken zudem Untreue auf: Manchmal ist der Vater eben nicht wirklich der Vater!

Wir nennen diese Situation ein "Non-Paternity Event" (NPE), doch ein umfassenderer Begriff, der der Unvollständigkeit genealogischer Aufzeichnungen Rechnung trägt, lautet "nicht der erwartete Elternteil". Wir alle haben solche Eigenheiten in unserem Stammbaum. Weit davon entfernt, ein Grund zur Scham zu sein, sind dies zutiefst menschliche Gegebenheiten, die Teil des reichen Gewebes des Lebens sind und, im wörtlichen Sinne, Teil dessen, was uns zu ... uns macht. Dies bedeutet jedoch, dass sich der genetische Stammbaum einer Person im Laufe der Jahrhunderte von ihrem dokumentierten Stammbaum entfernen wird. Typische Raten liegen bei etwa 1 bis 2 % pro Eltern-Kind-Verbindung, und deutlich mehr, wenn die Ausgangsgenealogie bereits unzuverlässig ist!

¹² Iain McDonald, ehrenamtlicher Administrator des Y-DNA-Projekts der Haplogruppe R-U106, PhD, Astro-physiker, Autor von *Phylogeography of R-U106*, 2026.

Der andere große Unterschied der genetischen Genealogie liegt in ihrer Langzeitperspektive. Autosomale DNA-Tests sind die gängigsten und können die weiter gefasste ethnische Herkunft einer Person sowie ihre nahen Cousins über einige Generationen hinweg aufzeigen. Um weiter zu gehen, kann man Y-Chromosom- und mitochondriale DNA-Tests (Y-DNA und mt-DNA) verwenden, die jeweils die männliche beziehungsweise weibliche Linie zurückverfolgen. Hier verlassen wir das Gebiet fein gezeichneter Stammbäume, Generation für Generation. Stattdessen malen wir mit weitaus gröberen Pinselstrichen, auf der Suche nach Herkunftsländern oder -kontinenten, und die Zeit wird in Jahrhunderten oder Jahrtausenden gemessen. Diese Tests befassen sich mit der tiefen Abstammung, verfolgen die Ursprünge von Familiennamen und den Weg einer bestimmten Ahnenreihe von den frühesten Zeiten des modernen Menschen bis heute.

Alle DNA-Tests funktionieren nicht durch den Abgleich von Personen mit bestehenden Registern, sondern durch den Abgleich untereinander. Folglich verfügen wir nur dann über Informationen, wenn eine Familie mehrere Nachkommen hinterlässt. Im Fall der Y-DNA bedeutet dies, dass ein Vater zwei Söhne gehabt haben muss, die beide überlebt und Nachkommen hinterlassen haben, die heute noch leben und testbar sind. Wenn nur die Familie eines der beiden Söhne überlebt hat, können wir über diese Generation anhand der Y-DNA nichts erfahren. Und die meisten Linien sterben letztlich aus: Eine mathematische Funktion namens Galton-Watson-Prozess besagt, dass in einer stabilen Bevölkerung 95 % der Familiennamen innerhalb von etwa 500 Jahren nach ihrer Entstehung verschwinden (mehr bei einer schrumpfenden, weniger bei einer wachsenden Bevölkerung).

Die Erforschung von Ursprüngen mittels genetischer Genealogie der Y-DNA bedeutet daher, Gruppen von Testpersonen mit gemeinsamen genetischen Ergebnissen (Haplogruppen) zusammenzuführen und nach Gemeinsamkeiten zwischen ihnen zu suchen. Wenn sich eine Haplogruppe auf Familienebene vor 500 Jahren gebildet hat und nur in der Schweiz zu finden ist, ist es wahrscheinlich, dass ihr gemeinsamer Vorfahre vor 500 Jahren in der heutigen Schweiz lebte. Vielleicht gehören sie zu einer größeren Haplogruppe, die sich vor 1000 Jahren gebildet hat und auch Testpersonen in Deutschland umfasst. In diesem Fall hat sich ein Teil der Familie wahrscheinlich zwischen Deutschland und der Schweiz bewegt (wobei die Richtung unbekannt bleibt). Die aus der Verteilung einer Haplogruppe gewonnenen Hinweise sind jedoch in der Regel schwieriger zu interpretieren.

Diese Art von Informationsfragmenten ergibt ein sehr unscharfes Bild der Bewegungen einer Familie im Laufe der Zeit. Aus diesem Grund wurde die Rekonstruktion dieser Bewegungen in der Vergangenheit gelegentlich mit "Kristallkugel-Lesen" verglichen. Die deutlich gestiegene Zahl der Menschen, die heute Y-DNA- (und mt-DNA-) Tests durchführen lassen, führt jedoch dazu, dass sich die Wissenschaft der Rekonstruktion von Ahnenreisen zunehmend aus dem Bereich der Pseudowissenschaft löst und in gesicherten wissenschaftlichen Fakten verankert wird.

Ich selbst stamme beispielsweise aus einer langen Reihe von Bauern und Bergleuten. Meine eigene männliche Linie reicht bis zu einer 1791 in Aberdeenshire im Nordosten Schottlands geschlossenen Ehe zurück. Meine Y-DNA stimmt mit der anderer Personen überein, die meinen Familiennamen tragen und mehrere Jahrhunderte vor diesem Datum lebten, was mir zeigt, dass sich mein Familienname in den Jahrhunderten vor 1791 nicht verändert hat. Ich stimme zudem mit Personen überein, die andere Familiennamen in der Region Aberdeen tragen,

was mir zeigt, dass der Ursprung meines Familiennamens wahrscheinlich in der Nähe von Aberdeen liegt, wo meine Vorfahren um 1400 lebten. Davor erstrecken sich einige Jahrtausende noch unbeschriebener Leinwand, auf der wir darauf warten, dass andere Testpersonen weitere Farbtupfer hinzufügen, doch es ist wahrscheinlich, dass meine Ursprünge im Norden oder Osten Frankreichs liegen und davor im Süden Deutschlands, schließlich in Tschechien. Es ist nicht ausgeschlossen, dass einige meiner Vorfahren vor langer Zeit, in der Bronzezeit, ein Alpental bewirtschafteten.

Auch alte (archäologische) DNA kann diesen Ahnenreisen einige Farbtupfer hinzufügen. Mittlerweile gibt es Tausende von alten DNA-Proben, die in Hunderten von Fachartikeln veröffentlicht wurden und dazu beigetragen haben, die Migrationen sowohl des Menschen als auch der Beulenpest zu kartieren, indem sie Bevölkerungsbewegungen identifizierten und zurückverfolgten, die moderne DNA nicht zu unterscheiden vermag. Alte DNA ist jedoch ebenfalls kein Allheilmittel, da ihr die Anzahl an Testpersonen und die Präzision moderner DNA-Tests fehlen. Ich persönlich habe das Glück, über zwei DNA-Tests zu verfügen, die meine Vorfahren mit Sicherheit vor 4000 bis 5000 Jahren in der Nähe Böhmens verorten. Der jüngere der beiden, ein Individuum namens PNL001, steht dem Vorfahren von R-L151 sehr nahe, einer Haplogruppe, die die Mehrheit der Männer sowohl in der Schweiz als auch in ganz Westeuropa repräsentiert¹³.

Der Detailgrad meiner eigenen Geschichte ist recht typisch. Manche Männer haben mehr, manche weniger Glück. In der Regel lässt sich mit Sicherheit feststellen, ob die neolithischen Vorfahren eines Mannes europäische Jäger und Sammler, aus Anatolien stammende Bauern oder aus den asiatischen Steppen eingedrungene Reiter waren. Man kann oft eine plausible Vermutung darüber anstellen, ob die klassische Abstammung einer Person eher germanisch, keltisch oder römisch ist, doch die Fähigkeit, einzelne Stämme präzise zu identifizieren, bleibt uns weiterhin verwehrt. Für die mittelalterliche Zeit lassen sich in der Regel einige Details ergänzen, doch dies hängt stark von der jeweiligen Familie ab.

Es ist wichtig, sich vor Augen zu halten, wie sehr diese Rekonstruktionen noch immer auf Vermutungen und auf Methoden der Dateninterpretation beruhen, die sich noch in einem sehr frühen Entwicklungsstadium befinden. Es handelt sich um ein aufstrebendes Feld, in dem neue Entdeckungen die Vorstellungen Jahr für Jahr verändern – doch genau das macht auch seinen Reiz aus! Es gilt jedoch zu verstehen, dass die Rekonstruktion von Y-DNA-Migrationen die verfügbaren Daten oft an die Grenze dessen treibt, was sie uns mitteilen können, sodass manche Interpretationen aufgrund der Unvollständigkeit dieser Daten wahrscheinlich fehlerhaft sind. Die groben Linien, die wir heute kennen, werden weiterhin dasselbe Gesamtbild zeichnen, doch die Deutung der Familiengeschichte eines Einzelnen kann sich ändern, sobald neue Daten eine bestimmte Linie genauer bestimmen. Wir dürfen hoffen, dass uns die Zukunft helfen wird, uns besser an unsere Vergangenheit zu erinnern.



13. Siehe z. B. M. Zieger & S. Utz, 2020, FSI: Genetics, 48, 102345; <https://doi.org/10.1016/j.fsigen.2020.102345>.

III • GEOGRAPHICAL LIMITS

"Where Two Rivers Meet, Two Destinies Divide."

The valley of Trient is located in the canton of Valais (Wallis), in Switzerland. Its name comes from the Trient river, even though the upper part of the valley is crossed by the Eau Noire river, which takes its source in the department of Haute Savoie, in France, above the village of Vallorcine. In fact, the two valleys form a single valley, one valley flows into the other.

The destiny of the populations living in this area has been closely intertwined over the centuries. Some families being part of the study, closely related to some Vallorcine families, are from a village located outside this area, Argentièrre, Haute vallée de l'Arve.

Broadly speaking, the study area has been divided into two distinct zones: the Trient Valley, to the East and South East, circumscribed between Vernayaz and Finhaut, and the Eau Noire valley, to the West and South West, circumscribed between Finhaut and Vallorcine.

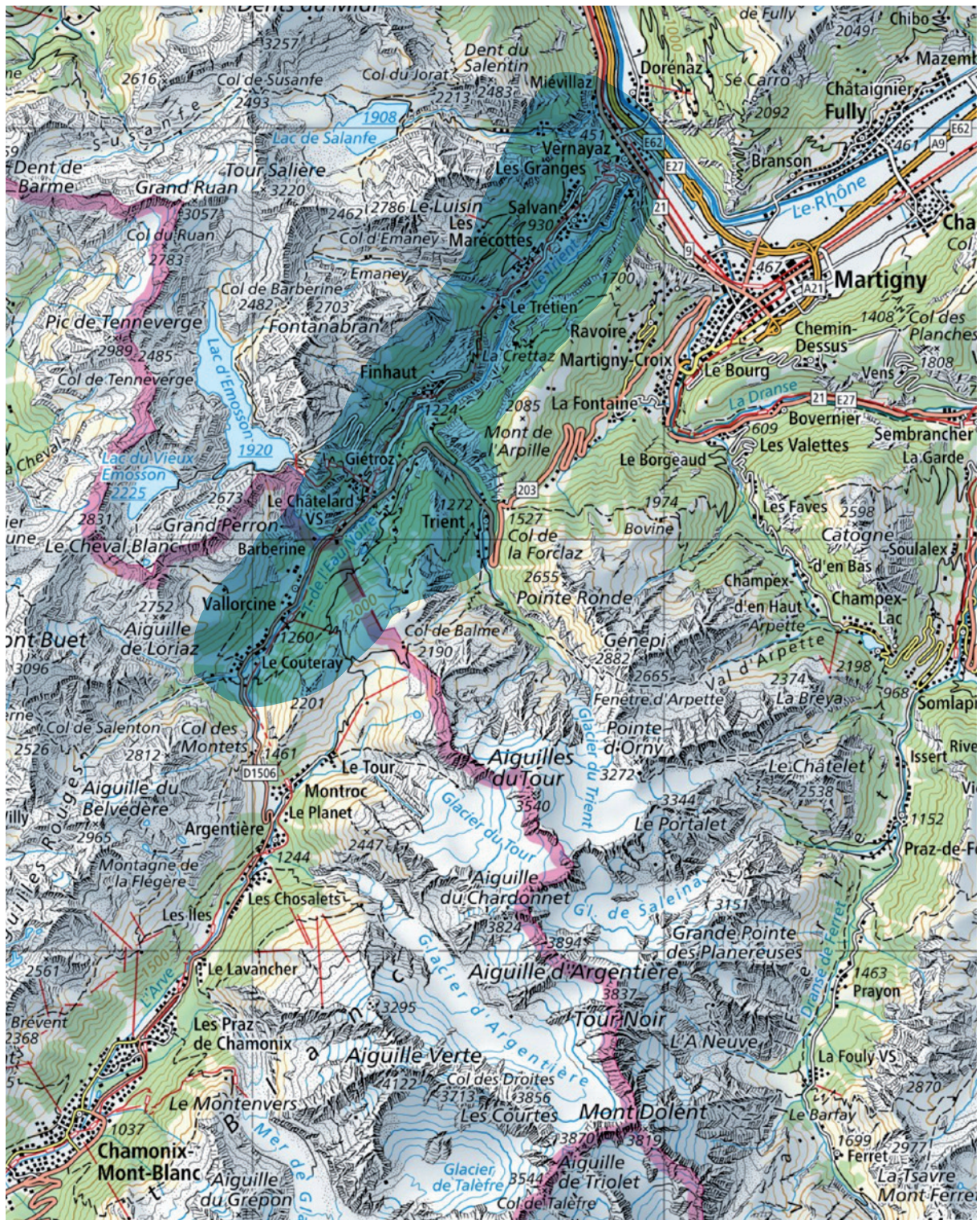
↓ Map of Switzerland, medieval monasteries and the Trient and Eau Noire Valleys.



In contemporary toponymy, which is sometimes unconcerned with the truth of the terrain, this region of the Valais canton is known as the "Vallée du Trient". In reality, most of the upper part of the valley is located in the Eau Noire valley. In fact, a large mass of land of the community of Salvan, most of the territory of the community of Finhaut and its hamlets, Châtelard and Giétroz, overhangs and borders the left bank of this river. The same applies to an area of the community of Trient, with the hamlet

of Les Jours located entirely on the right bank of the Eau Noire. As for Vallorcine, its entire territory flows into this river, already named *aqua nigra* in 1264.

↓ The Trient and Eau Noire Valleys, from Vernayaz until Vallorcine (Swiss map).



During medieval times, to link the Rhône and Arve valleys, the Trient and Eau Noire valleys offer an alternative to the Col de la Forclaz. However, it appears uninviting to first-time travellers: the view of the river Trient gorges from Ottanel (Vernayaz in the Rhône plain) is disquieting. Further up, the Triège is cut off abruptly, requiring a considerable detour.

At that time, the most obvious and shortest way is the Col de la Forclaz, which leads to the still inhabited zone of Trient. Then, up the classic *Tseppes* trail that runs alongside the iron mines already in use at the end of the Roman era, to reach the Col de Balme before descending towards Le Tour at the source of the Arve. Later, a difficult and dangerous path on a section called *Maupas* will connect Trient to Vallorcine.

↓ The Eau Noire Valley, from Finhaut to Vallorcine (*L'erba*).



IV • OCCUPATION OF THE TRIENT AND EAU NOIRE VALLEYS OVER THE AGES¹⁴

“Before the Archives, the Stones Remember.”

It is likely that the first permanent settlements occupied the Mont de Salvan towards the end of the Neolithic period.

Les premiers visiteurs

Paler de l'histoire des premiers habitants de la vallée du Trient, dans l'état actuel des connaissances, revient à émettre des hypothèses sur l'occupation des lieux, à établir une analogie avec des régions topographiquement proches et à donner un relief des découvertes archéologiques.

EN VALAIS...

... les premières occupations datent d'une phase temporelle de la dernière glaciaire, le Würm. Entre Vinay et Vièze, un site paléolithique avec des outils en silex a été découvert. La forme des objets permet d'estimer que des chasseurs avaient atteint le Chablais pour la première fois vers cinq à sept mille ans av. J.-C. Dans le pléistocène (il y a dix mille ans av. J.-C.), une vaste culture glaciaire couvrait la vallée et se développait vers les lacs qui s'étendaient loin au-delà des Alpes. L'épaisseur de glace en était estimée à mille cinq cents mètres au-dessus de Martigny, soit un peu plus haut que la Léchère de Finhaut. Les glaciers ont commencé à fondre vers mille ans av. J.-C. Ils coulaient cependant dans les vallées latérales au-dessus de six cents à mille mètres d'altitude.

APPARITION DU MONT DE SALVAN

Durant le Néolithique (il y a deux mille ans av. J.-C.), les premiers habitants du Valais vivent de préférence en plaine et se rendent certainement l'été en haute montagne pour garder leurs moutons et leurs chèvres. Durant l'âge du Bronze (deux mille à huit cents ans av. J.-C.) et jusqu'à la fin de l'âge du Fer (deux cents à quatre cents av. J.-C.), une population qui occupe désormais les abords de la plaine installe certains de leurs villages dans les zones de montagne.

LA VALLÉE DU TRIENT

Pour relier les vallées du Rhône et de l'Arve, la vallée du Trient offre une alternative au col de la Forcla. Elle apparaît cependant de manière peu engageante aux premiers voyageurs : le vallon des gorges du Trient depuis Ouse est inexplorable. Plus haut, le couloir breuil du Trient impose un dénivelé considérable. Le passage de Finhaut vers Vallouise n'est pas très facile. L'une des cols de la Forcla s'impose donc comme voie naturelle. Deux variantes permettent de rejoindre la vallée de l'Arve : celle d'été par le col de Balme en direction de Vion, celle du printemps et d'automne par les Joux et Vallouise, difficile et périlleuse à certains moments.

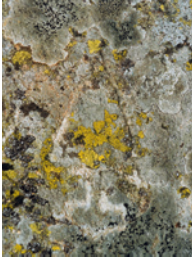


Rocks with cupules, hundreds of rock engravings in Salvan and elsewhere in the valley (largely destroyed today, but recorded graphically), such as the Middle Neolithic Camunian dagger from Fénéstral are still visible. Polished stone and bronze axes, slab graves from Cloesé de la Vella de Salvan, de la Combe, de la Vella des Marécottes, Roman figurines, fragments of vases, ceramics, pottery, and Roman coins sometimes found on the alpine pastures, bear witness to this ancient human presence.



ANALYSE RÉCENTES DES ŒUVRES RUPESTRES
A. BLAIN ET V. PAQUIS

Ces deux chercheurs racontent ainsi, avec tout le grain de la recherche, les types de grottes qui existent dans la vallée du Trient. Ces types de grottes se retrouvent dans toute la vallée du Trient. Ces types de grottes se retrouvent dans toute la vallée du Trient. Ces types de grottes se retrouvent dans toute la vallée du Trient.



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14. Raymond Lonzat : cf. vol I. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*, 2010. Cf. chap. *Les premiers visiteurs*, p. 36 ss. provides a fairly comprehensive inventory of archaeological discoveries identified in the region.

Can the bronze axe found in the Triège forest near *les Peutex* attest to permanent occupation during this period? Analysis of pollen found in peat bogs at Le Tour and Les Houches suggests the existence of cereal farming between 2,700 and 2,300 BCE. Remains from the Roman period – figurines, a well-worn dupondius of Emperor Nero (54-68) and a magnificent iron key with bronze handle depicting a leaping panther found at Miéville, fragments of vases, ceramics, pottery, Augustan sigillated beakers found on the Perron des Marécottes around 1970, a Divus Augustus coin found on the way to Van in 1991, a Roman bronze coin of Germanicus, minted under Caligula (37-38 CE), found near the border at Le Châtelard, and an Antoninian of Claudius II, known as Claudius the Gothic, emperor from 268 to 270 CE, found on this path not far from *Tsanté di Dàlys*, under *la Louye Dèjo*, are they also evidence of the presence of well-established inhabitants in the valley? Near the Col des Montets, Vallorcine, under a small rock shelter, a dozen pieces of rock crystal and a deposit of Roman bronze coins were found. At *Scex de la Vella* in Les Marécottes, two burial tombs were observed, arranged almost side-by-side in a West East orientation. These small necropolises may have contained both La Tène and Gallo-Roman graves. They provide evidence of the presence of a long-lasting population in the region.



Ci-dessus : une pièce de monnaie de l'empereur Dioclétien, frappée entre 296 et 305 apr. J.-C., perdue et trouvée en pendentif. Trouvée dans une tombe sous le soc de la Vella des Marécottes. En dessous, un petit galet poli en roche verte, conservé dans la main droite du squelette (collection Pierre-Alain Bezat). En fond : selon André Blain, un motif animalier gravé sur une roche de la zone sud de Salvan, peut-être par des chasseurs-cueilleurs post-magdaléniens (déjà vers 3500 av. J.-C.), représentant un suidé. Les dimensions de la gravure, d'un tracé non jointif mais piqueté, sont de 9,6 cm de long (dessin d'André Blain).



Pièces romaines. En haut : profil de l'empereur Claude I^{er} (41-54 apr. J.-C.) frappé sur un sesterce trouvé en 1990 dans une tombe de la nécropole de l'amphithéâtre de Martigny. Diamètre 3,4 cm. Photographie Archéologie cantonale, François Wiblé, Martigny. En bas : Trouvée près de la frontière du Châtelard, une monnaie en bronze de Germanicus, frappée sous Caligula (37-41) (collection Pierre-Alain Bezat).

que des stations de plateau [...]. Ces sites n'ont pas livré d'art parietal, par contre, de nombreux objets mobiliers sont porteurs de témoignages artistiques. Les et les galets servent de support pour différentes gravures animalières. Bien que différenciés, l'outillage des nombreuses stations démontre que les post-magdaléniens continuaient à pratiquer une économie de chasseurs-cueilleurs. L'abandon progressif des abris sous roche et leur remplacement par des stations de plein air n'est certainement pas étranger à la naissance de l'art rupestre alpin. Deux des trois roches de Salvan ont livré entre autres, des motifs animaliers. Le motif 1, gravé sur la roche 1, flanc est, s'inscrit dans des dimensions suivantes : 76 x 50 cm ; la profondeur irrégulière varie entre 0,3 et 0,7 cm. Le tracé n'est pas jointif, ce ne sont plus des zones denses de piqueté ; un trait continu délimite le sujet. On peut attribuer ce thème à une représentation de suidé. Placé sur la roche 3, le motif 2 représente très vraisemblablement un bouquetin. Incisé sur une roche verticale où figurent entre autres, plusieurs têtes d'animaux, ce thème mesure 24 cm sur 18 cm. La profondeur du motif demeure constante : 0,3 à 0,5 cm. Les petites dimensions de l'animal ont influencé les techniques d'exécution, celles-ci diffèrent dans le cadre de ce motif. En effet, les traits dominants de l'animal sont clairement rendus. Le détail de la tête est très précis, en revanche, les auteurs négligent les jambes.

Les **stèles anthropomorphes** : deux stèles gravées se rattachant sûrement à un contexte chronologique constituent une découverte essentielle. Nous pouvons dès lors établir une typologie complète grâce à la mise en relation des zones est et sud.

La plus petite : 30 x 30 cm, présente un visage en tête de chouette. Les yeux sont en relief alors que le collier ou pendentif sont gravés ; le contour

extérieur de la gravure est signifié par un trait continu [...] le visage de la stèle Châtelard, Val d'Aoste, présente également des affinités avec la gravure de Salvan [...]. Deux gravures de Grosin (Vallée) représentent plusieurs fois le contour de la stèle de Salvan. Toutes ces similitudes nous permettent de rattacher cette gravure dans un contexte précampaniforme, c'est-à-dire durant le Néolithique moyen (3800-3500/3400 av. J.-C.). Mentionnons que l'étude de la plus grande stèle 60 x 170 cm n'est pas encore terminée. De visage non défini, les auteurs ont privilégié le buste pour y figurer des motifs de haches et de ballesbardes. Ils nous restituent ainsi un thème d'écusson largement répandu. Nous comparons pour l'instant ce motif unique dans nos régions à la figuration camunienne du Carpele à Sellero, le tout s'inscrivant dans un cadre chronologique datable de la période du Néolithique final (2800-2600 av. J.-C.).

Une **roche à cupules** : la prospection de la roche dite Dos de l'éléphant laisserait penser que cette zone a été fréquentée durant le Néolithique ancien. Disposée sur le sommet, sur une longueur proche de 2 m pour une largeur de 0,30 m, un semis de dix-neuf cupules, d'un diamètre variant entre 3,8 et 8,2 cm, et d'une profondeur oscillant entre 0,8 cm et 2,4 cm. Deux gravures sont simplement ébauchées. Pour les dix-sept autres, il ne fait pas de doute qu'elles résultent d'une conception unique. Pour obtenir une telle identité, l'exécutant a pratiqué une seule technique en se servant d'un percuteur lourd, afin de marteler la roche et d'en polir le creux. C'est, selon l'avis de certains spécialistes, l'ensemble le plus homogène et le mieux conservé de l'arc alpin (4200-3800 av. J.-C.) (...).

André Blain signale également des gobelets sigillés augustéens¹² trouvés au Perron des Marécottes vers 1970. S'agit-il des mêmes objets : M. Coquozy, ancien voyer de l'Etat valaisan, possédait deux vases augustéens provenant de la place centrale des Marécottes.



V • LORDS OF THE TRIENT AND EAU NOIRE VALLEYS¹⁵

“History repeats itself; historians repeat themselves.”

(P. Guedalla, 1889-1944)

Lost valleys? Isolated? Not welcoming to classic breeders and farmers? Away from migratory flows, military and political movements? They certainly are. However, they are the guardians of a very precise boundary, upstream of the Trient, located near the intersection of the Barberine and Eau Noire rivers, which both divides and unites three lords!

1 • THE ABBOTS OF THE AGAUNE MONASTERY¹⁶

The foundation of the monastery of Agaune in 515, close to the valley's land and above all its alpine pastures, did not leave its lord abbots to contemplate a land without men, as the income from the alpine pastures was of great importance to the abbey.

515

Les abbés du monastère d'Agaune, seigneurs de la communauté de Salvan

En 515, le roi burgonde Sigismond fonde le monastère d'Agaune pour chanter la *laus perennis*, la louange perpétuelle. Ce monastère rigide durera près d'un millénaire l'hôte de la communauté de Salvan.

L'HISTOIRE DE L'ABBAYE DURANT LE PREMIER MILLÉNAIRE

Romain Bucci, archiviste paléographe, dans l'introduction de sa thèse présentée à l'École nationale des Chartes de Paris en 1997, résume l'histoire de la fondation du monastère :

« L'abbaye et le *bourg de Saint-Maurice d'Agaune* se situent sur le cours du Rhône dans un *terroir défilé à trois kilomètres en aval de Martigny*, et à vingt et six kilomètres en amont du lac Léman¹⁵. Une époque préhistorique et jusqu'à 17 siècle de notre ère, ce lieu fut connu sous le nom de *castrum* de *Aganum*, ce qui signifie : le rocher, l'effluve ».

15. Raymond Lonfat : cf. vol I. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Raymond Lonfat : cf. vol III. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475, Salvan, Finhaut, Vernayaz* (Unpublished).

“
Évite comme la peste un homme d'Eglise
qui est aussi un homme d'affaires.”
Saint Jérôme (345-420)



From 856 onwards, the abbey fell under the control of secular princes. In 888, Rodolphe I founded the second kingdom of Burgundy at Saint-Maurice, where he was “*abbé laïc*”. On February 15, 1018, King Rudolf III of Burgundy gave or restored various domains in the county of Valais, including all the pastures in the Chablais region. This certainly included the left bank of the Trient Valley, including Salvan and Ottanel. Between 1025 and 1031, Archbishop Bourcard II, abbot of Saint-Maurice, and Bishop Bourcard of Aosta, provost of Saint-Maurice, granted *Tipoldus*,

15. Raymond Lonfat : cf. vol I. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Raymond Lonfat : cf. vol III. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475, Salvan, Finhaut, Vernayaz* (Unpublished).

16. Saint-Maurice abbey, Valais (Wallis), Switzerland.

deacon and canon of Saint-Maurice, and his three sons Durando, Harmann and Stevilio, with the approval of Old King Rudolph and his wife Ermangarde, six *tene-ments* in various locations¹⁷ “and all that we have seen him hold” between the two rivers called *Trioncia and Salontia*, and on *Monte Salvano*, with all its uses. This donation strengthened this hold and made it clear that an estate comprising several mountain pastures was always inhabited. Although probably sparsely populated given its geomorphology, the valley was nevertheless of economic interest. It was temporarily “stolen” from the abbey around 1070 by the noble Allinges family, only to be returned in 1138. Further confirmation if any was needed: *the Mont* parishioners were there, and a chapel existed at Ottanel (Vernayaz) in 1147.

The monastery's territory, comprising the alpine pastures of Emaney, Fenestral, Emosson and Barberine, came up against the limit of the Pont de l'Île du Châtelard and the shifting border of the Col de Balme. His men would farm the Tenne-verge alp, vertiginously suspended over the Fer à Cheval of Sixt, and report to this abbot, whose men would never have access to this inaccessible alp on their side for large livestock.

↓ Part of the monastery's territory, a map from 1692-1709 (L'erba).

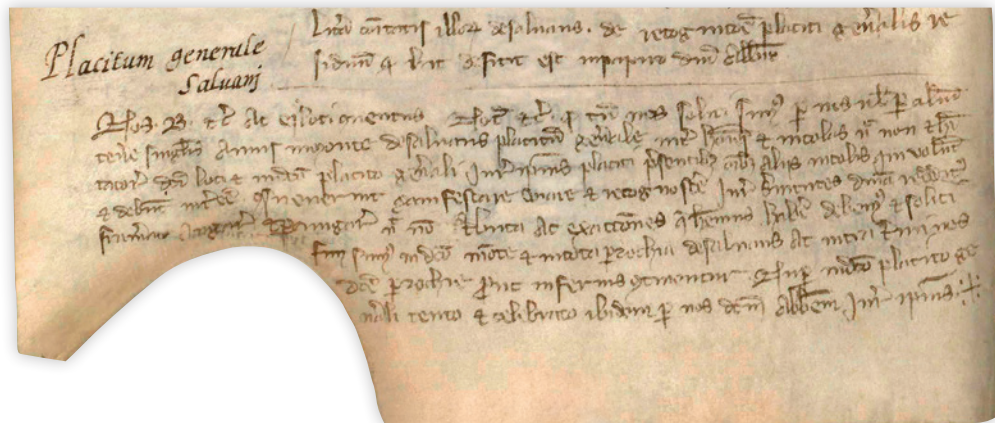


Hugo, prior in 1137, future abbot, Rodolphe, an efficient manager and reformer, abbot before 1153, Bourcard, abbot in 1174, an excellent defender of the monastery's rights, Guillaume, abbot in 1179, followed by another Guillaume, again a very good manager, Gontier, abbot in 1198... Aimon, abbot in 1203... these figures undoubtedly played an active role in the settlement of the *Mont de Salvan*.

17. Fixed property and land held under feudal law.

Documents from the 13th century provide a clear picture of the land cleared and, consequently, of the evolution of the population, the gradual occupation of the new settlements and the construction of their hamlets. In 1313, around 580 people lived on the left bank of the Trient Valley, but perhaps fewer than 200 lived in Salvan, Le Bioley, Les Granges, Les Marécottes and Le Trétien a century earlier, while Finhaut, Giétroz and Le Châtelard were not yet inhabited.

↓ In 1324, un *Placitum generale*, a proof of a well-established community, a “record of customs,” is concluded in Salvan during a ceremony in which the men pay homage and pledge allegiance to their lord (AASM CHL 0/0/2/120).



This valley, rarely used for transit of any kind due to its rugged configuration, notably the difficult crossing of the Triège, could have been forgotten by history. However, the valley's development has always involved a key player. The monastery, as temporal owner, regularly attempted to populate this particularly ungrateful land, which nonetheless boasted numerous pastures, essential sources of food for the monks through its own herds but above all, in a gradual but certain way, through the royalties received in cheese, serac, butter and meat.

Probably with the help of intermediaries, through contact with other monasteries in German-speaking Switzerland, the abbots received migrants sent to the *Mont de Salvan* in the Trient and Eau Noire Valleys.

Entre 1025 et 1031
Monte Salvano

LES FAUSSEAIRES SINCÈRES

Le 15 février 1018, le roi de Bourgogne Rodolphe III donne – ou restitue – deux domaines dans le comté du Valais, notamment sous les pittoresques noms de Le Châblais¹ et La trië gualche de la vallée du Yéon comprenant Salvan et Chautal en son domaine partie. Entre 1025 et 1031, l'évêque Bernard II, abbé de Saint-Maurice, et l'évêque Bernard d'Annay, prévôt de Saint-Maurice, avec le consentement des frères de la communauté, consacrent à Tignes, dans le comté de Saint-Maurice, et à son monastère de Tignes, deux domaines situés dans le comté du Valais, notamment sous les pittoresques noms de Le Châblais¹ et La trië gualche de la vallée du Yéon comprenant Salvan et Chautal en son domaine partie.

“Les anciennes histoires sont des fables sur lesquelles nous sommes tombés d'accord”

Voltaire (1694-1758)

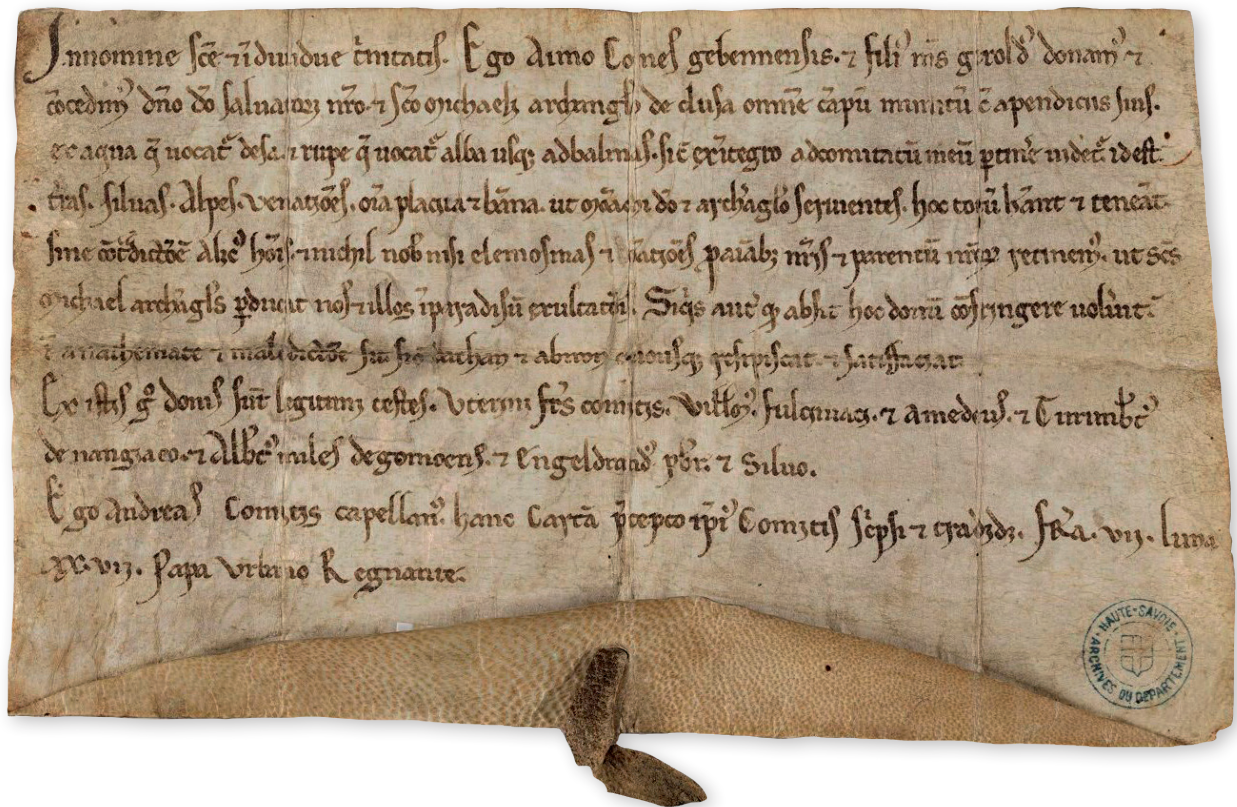
Only two *serfs*, Christin and Martin, are mentioned in 1180 as men given to the abbot of Saint-Maurice¹⁸. These men were the object of a certain trade, as they were the property of a master. However, they are never equated with merchandise, as they are protected by local custom. Their status is nonetheless humiliating: the possibility of being disposed of as chattel marks a real, or at least psychological, inferiority.

Still towards the end of the 13th century, documentation shows that the abbey had one of the valley's lands, the "vertiginous meadow" of Gueuroz, cleared by Teutonic settlers. Were they the ancestors of some of the community's families?

2 • THE PRIORS OF CHAMONIX

The deed of gift from Count of Geneva Aymon I to the Benedictines of the abbey of Saint-Michel de la Cluse, the founding abbey of the priory, governed Chamonix both temporally and spiritually until 1520. It bears no date, but is dated between 1088 and 1099, under the pontificate of Urban II.

↓ Charter establishing the priory of Chamonix, late 11th century (Haute-Savoie Departmental Archives).



¹⁸. Serfdom was a condition of debt bondage and indentured servitude with similarities to and differences from slavery.

The donation briefly indicates the boundaries of the territory. The Val de Diosa, Vallorcine and the Col de Voza are not indicated. As both the writer of the deed and the donor were probably unfamiliar with the area, the formula *cum appendiciis suis*, meaning “with its dependencies”, was used to cover everything that could not be specified, lands and rights. At both ends of the valley, particularly in the Vallorcine area, frequent disputes arose between the inhabitants of neighbouring communes. Some of these often led to armed struggles and depredations authorised or even encouraged by the priors and abbots.



Grazed by herds since Neolithic times, the Chamonix Valley underwent profound changes between the 11th and 13th centuries.

The first prior of Chamonix seems to have had to deal with a community of free peasants. Analysis of later documents suggests a small population. The deed of gift from the priory suggests that land and mountain pastures were farmed. However, the absence of any hamlets does not rule out the presence of scattered fires¹⁹. This situation can be compared with that of the Trient valley, where the first fires in certain hamlets such as Finhaut, did not appear until the end of the 13th century.

The Benedictine monks brought in settlers to clear the land, at the origin of the villages and mountain pastures of today.

The priors emerged around 1224, following disputes with certain men in the community. On January 12, 1236, Aymon, lord of Faucigny, took the Chamonix community under his protection. It wasn't until 1292 that an arbitration ruling was issued between the prior and the local inhabitants, setting out new franchises and operating procedures and further establishing the prior's authority.

The abbot of Saint-Maurice probably did not know the exact content of the deed. However, he cannot have been unaware of the existence of the new priory. The name Balmes marks a boundary, probably at the Col de Balme, at the end of the

19. Household.

upper Arve valley, adjoining the possessions of the bishop of Sion. The territory of Vallorcine is unclear. Unusually, this upstream part of the Eau Noire valley is located outside the Arve valley, and is not mentioned in the description of the boundaries. Was the abbot aware of the existence of this land on the borders of the *Mont de Salvan* territory, which logically should have belonged to him? He did not react to the implementation of a new community in the upper Eau Noire Valley.

↓ A new community in *Vale Ursina*, Vallorcine. (The hamlet of Barberine)



↓ Ratification of the Act of May 14, 1264, giving the right to the *Theutonic* to occupy *Vale Ursina* (ASTO, mazzo da inv.)



A difference in the way the community of Salvan functioned became apparent, with one community defending itself against the authority of the prior, while the other seemed to “accept” the power of the abbots more readily.

The prior's territory was set against that of his confrere, the abbot of Saint-Maurice, the famous limit of the Pont de l'Ile du Châtelard, and that of the Col de Balme for the bishop of Sion.

3 • THE BISHOPS OF SION AND THE PROVOSTS OF THE GRAND-SAINT-BERNARD

In 1359, the bishop of Sion granted Catogne half of the Meysellière mountain pasture in exchange for the regular payment of a fee to the episcopal *mense*²⁰ by the cattle breeders of the Combe de Martigny, and especially those of the Jeurs de Trient. As landowners of land almost systematically cleared by migrants from Vallorcine and the upper Arve valley, these lords were pleased to see the arrival of these new taxpayers, who gradually occupied most of the Combe de Martigny and its hamlets. One or other of the two *covidomnes* of Martigny, frequently at this time the squire (young lord) Aymon de Martigny, collected royalties on behalf of the bishop of Sion.

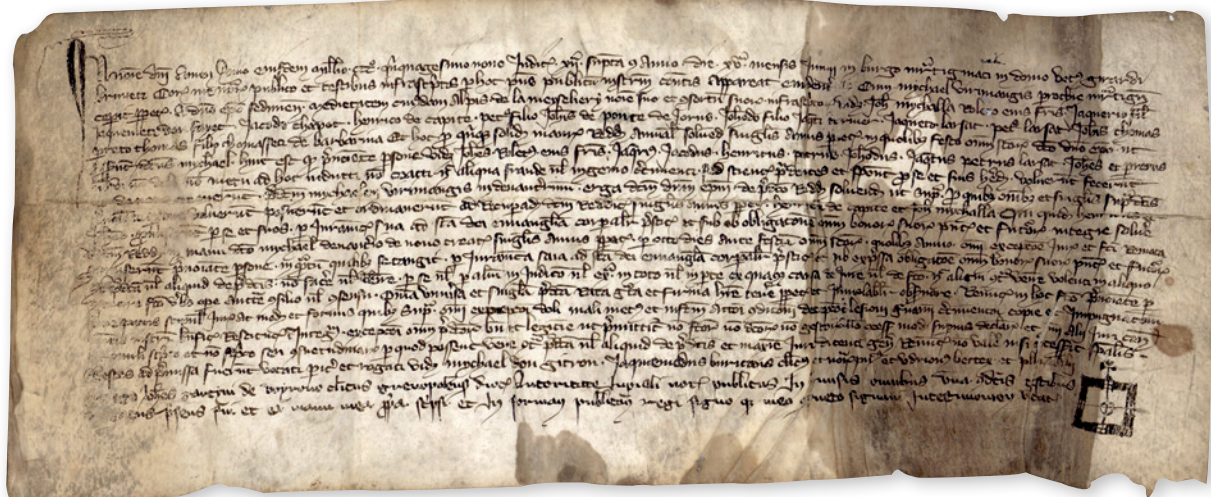
↓ Alps of les Jeurs of Trient. On the left, an area near an old iron mine, already in operation during Roman times (Flight over Trient - Mont-Blanc).



Other lords also held estates in this region, such as the provost of Grand-Saint-Bernard, represented by his prior in Martigny.

The territory of the Bishop of Sion joined that of his two confreres of Chamonix and Saint-Maurice at the Pont de l'Ile de Châtelard.

20. A form of ecclesiastical income in the Catholic Church, a land tax.



↑ On June 15, 1359, a *consortage* receives from the bishop of Sion, half of an alpine pasture in the Jeurs de Trient mountains (JRS 1/2).

Around 1300, the mosaic of lords with which the breeders of the Trient and Eau Noire valleys had to contend was complex. In addition to their links with the abbot of Saint-Maurice or the prior of Chamonix, when they emigrated to the right bank of the lower Eau Noire, still men-at-law of their previous lords, they had to acknowledge that they held these new lands from the Count of Savoy.



VI • PEASANT COMMUNITIES WITHIN THE LORDSHIPS OF SAINT-MAURICE AND CHAMONIX

NICOLAS
CARRIER²¹

“Serfs in Law, Free in Spirit: The Paradox of the Alpine Peasant.”

To situate these genetic lineages within the lived reality of the communities that carried them, I asked Nicolas Carrier, Professor of Medieval History at Université Jean Moulin Lyon 3 and a foremost specialist of Alpine peasant communities, to describe the social and legal world in which the families of the Trient and Eau Noire Valleys built their lives.

The human groups that formed with the settlement of Salvan, Finhaut, Trient, Vallorcine, and the Chamonix valley were given, in medieval sources, designations that increasingly clearly suggest they had constituted structured political communities. These communities first developed within the framework of parishes, since building and maintaining the church and cemetery were doubtless among the first tasks requiring collective decision-making. Villages subsequently banded together to defend their common interests against the lords, thereby expanding the scope of these communities. This evolution can be observed on both sides of the present-day Franco-Swiss border, which at the time marked the boundary between the possessions of the Abbey of Saint-Maurice d'Agaune and those of the Benedictine priory of Chamonix.

In 1250, the “men of Salvan” (*homines de Salvan*) are mentioned, described as forming a “community” (*communitas*). Finhaut was then gradually settled, and from 1299 onward, the men of Salvan and Finhaut are consistently referred to together. In 1264, we find the first mention of the *communitas et universitas* of Chamonix, a designation referring solely to the inhabitants of the parish of the same name. This remained the case at the time of the granting of the first charter of liberties of Chamonix in 1292. However, in a document dated 1320, the *universitas* encompasses the inhabitants of both the parishes of Chamonix and Vallorcine, and upon the renewal of the charter in 1330, it extends further to include those of the parish of Notre-Dame du Lac. By the fourteenth century, the abbots of Agaune and the priors of Chamonix were thus confronted with unified peasant communities.

The peasants of Salvan and Finhaut, as well as those of the Chamonix valley, lived under a paradoxical legal status that rendered them simultaneously serfs and privileged subjects. Indeed, the abbot of Saint-Maurice and the prior of Chamonix, like all Alpine lords of that era, would only agree to grant land to men who acknowledged themselves as their serfs or, as the expression ran at the time, their “liege men” (*homines ligii*). In law, these men became virtual human

21. Nicolas Carrier, Professeur d'histoire du Moyen Âge. Université Lyon 3.

property: they could be bought, sold, or exchanged. This was a means of acknowledging that they depended exclusively upon their new lord and had severed all ties with whomever they had left behind when settling in the mountains. They were, moreover, required to produce a deed of manumission as proof that they were no longer bound to any prior lord. Should they subsequently wish to leave the valley, they were free to do so, but only upon selling their property to other serfs. What the abbot and the prior ultimately sought was to ensure that the men who cultivated their lands were answerable to them alone and could have recourse to no other lord. They were indeed surrounded by powerful and threatening neighbours, such as the Count of Savoy, the Count of Geneva, and the Dauphin of Viennois. They ultimately succeeded in obtaining from the latter the recognition of exclusive jurisdiction over their peasants, including the power of life and death.

And yet, the sources demonstrate that the peasants of Chamonix, Vallorcine, Finhaut, and Salvan enjoyed a privileged condition relative to those of the surrounding valleys. In particular, they were exempted from two especially burdensome obligations. The first was the tallage (*tallia ad misericordiam*), a levy that other lords imposed at will, without any customary or contractual limitation. The men of Salvan and Finhaut secured its restriction as early as 1250, while those of Chamonix and Vallorcine never paid it at all. The second obligation was mortmain (*manus mortua*), which consisted in an incapacity to transmit one's property to anyone other than one's male children. If a subject under mortmain died without leaving a son, the lord confiscated his goods, with no right of inheritance passing to collateral relatives. The men of Saint-Maurice, and above all those of Chamonix, obtained so many exemptions that mortmain was rendered virtually inapplicable: for instance, it did not apply to those who died from a fall in the mountains.

Negotiations between the peasants and their lords most commonly took place within the framework of the "general pleas" (*placitum generale*), that is, the assembly of all members of the peasant community gathered around their lord. It served a threefold purpose: the lord or his judge administered justice therein, assisted by peasant assessors; a "record of custom" was established, whereby "jurors" chosen from among the elders and notables of the village were called upon to recall local custom; and finally, common affairs were addressed: seigneurial dues, management of alpine pastures and forests, communal works, and so forth. The assembly thus had the capacity to evolve customary law, exercising genuine legislative power. Following discussions that could be protracted, and negotiations that were often arduous—not only between the peasant community and the lord, but also among the various factions within the community—consensus was sought. This was a necessity, since voting did not take place. Indeed, as the Latin term *universitas* indicates (meaning "the whole", "the totality"), the rural community had no legal personality independent of the totality of its members. Decisions could therefore only be reached unanimously: it sufficed for a single individual to oppose a resolution for it to be invalidated. Once consensus had been achieved, the agreement of all was expressed through a ritual in which the jurors articulated the decision aloud, amid a reverential silence that manifested universal assent. All the peasants were thereafter bound by the decision, and the lord was charged with its enforcement.

This entire procedure was oral in nature, and we know of it only because, from the fourteenth century onward, written records of these assemblies were occasionally produced, as at Salvan in 1324. This practice arose most often when particularly contentious matters had been discussed, and a written record was preferred to ensure that the decisions reached would be carried out. A substantial series of written transactions has thus been preserved at Chamonix, illustrating the conflicts between the inhabitants and their prior during the fourteenth and fifteenth centuries.

Deeply attached to the custom of unanimous decision-making, rural communities were very slow to designate permanent representatives. In 1264, in a dispute with its neighbours, the community of Chamonix was still represented by the prior himself. Later, procurators appointed to address specific matters made their appearance. Then, in the course of the fourteenth century, permanent syndics were instituted, elected by the rural communities yet under seigneurial oversight. These syndics were able to secure significant privileges. At Chamonix, in consideration of the fact that the prior held the power of life and death over his peasants with no right of appeal to another judge, the syndics, acting in the name of the community, obtained the right to try the inhabitants of Chamonix themselves in cases entailing capital punishment.

It was in this manner that local political life perpetually sought an unstable equilibrium between submission to the lord and the liberties of the peasant community. There was one point on which all parties were in agreement: the necessity of resolving disputes among themselves, so as to preserve local autonomy.



VII • CREATION OF MEDIEVAL HEREDITARY SURNAMES, MULTIPLE TRANSFORMATION PROCESS²²

“Tracing Surnames Through Time: A Pioneering Y-DNA Study of Two Alpine Valleys.”

A lot has been written about surname construction, but very little about the multiple SDEs and their reasons²³. This is, however, an essential topic for researchers interested in Y-DNA.

On the *Mont de Salvan*, the earliest records of individuals mention only a first name accompanied by the phrases “inhabitant of...” and, more occasionally, “son of...”. Given at baptism, often inspired by the Bible or of Germanic origin, these relatively uniform first names underwent changes through the addition of diminutives. The firstborn son was named after his father, while younger sons were named after their godfather or godmother (almost always an uncle or aunt) or their paternal grandfather. From the second half of the 13th century onwards, a new way of specifying identity appeared, based on the Roman model: the addition of a name that could be passed on to heirs.

Nearly a third of surnames are derived from a place name. The place name is used to identify a person, and when their descendants keep the name, it becomes a surname. The frequent use of the same first name in the same place will necessitate the creation of new surnames that are different from the place name. A place of origin outside the valley will also be a source of surnames.

In one-fifth of cases, they are derived from the first name of an ancestor.

Geographical features, such as the presence of a stream, a spring, a valley, a cliff, or a marsh, can also inspire the creation of a name. The ground cover, the striking presence of a particular tree species, or the predominance of a plant species provide excellent qualifiers. A person's character, physical or moral traits, flaws, defects, or marital status become ironic or affectionate nicknames, powerful enough to define a family. The father's profession or position marks the entire family. The names of wild or domestic animals, objects, tools, utensils, clothing, and, more rarely, religious holidays become surnames. Successive moves bring about changes. Settling in a new place often means being given the place name as a surname. If that name is already taken, the person who moves keeps the name of their former home. Changing one's profession or social responsibility, or living with one's maternal grandfather, could lead to the creation of a new name. Living with one's father-in-law, especially in the absence of a male heir, and working with him on his land would be enough to be assimilated.

The different surnames used by a person may appear in succession, sometimes preceded by a dictus or alias. Gradually, one of them will become the dominant name. The difficulty of choosing between the father's or mother's name will often be passed on to the heirs.

22. Raymond Lonfat: cf. vol. II, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Cf. chap. *Histoire et généalogie*.

23. Surname discontinuity events.

The origin of certain names remains a mystery. This is the case for the *Unzat* family (later on transformed into Lonfat).

Changing names four times!

Jean *Juglar*, named after his father's surname, sometimes becomes Jean *Willielmi*, after his father's first name. Then, Jean *d'Espinasse*, after his place of origin. He is finally known as Jean Claivoz, after his grandfather's surname from Le Trétien living in Finhaut, Perrier Claivaz! The two villages are very close, but the pronunciation is heard *az* in Trétien, and *oz* in Finhaut, the *z* not being pronounced in both cases.

In 1321, Martin *Magnoz* du Trétien, hamlet of the Salvan's community is no longer called *Magnoz*, but *Niezat*. After moving to the Rosel, he appears as Martin *de Salvan*. Subsequently, he is recorded in documents under the name Martin *du Rosel*...

Keeping the same surname... changing haplogroup three times!

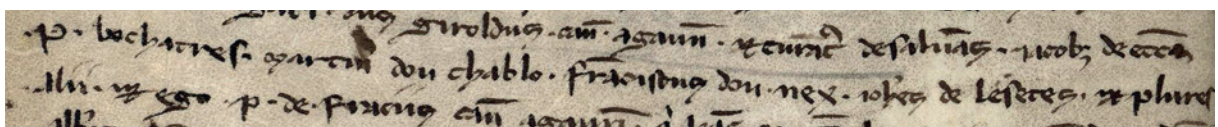
The Gross "**anciens 1**" family, which is dying out at the beginning of the 15th century, has its name taken up by a Pierre Valet, who becomes Pierre Gross "**anciens 2**" when he marries one of the last descendants of the family. Ironically, Pierre Gross has only daughters! One of his sons-in-law, a stranger to the Trient Valley, originally bearing the surname *Bex*, takes on the already usurped surname Gross and becomes the ancestor of the "**new**" Gross family of Finhaut.

↓ On June 24, 1329, in Salvan, a deed relating to his sister Raymonde is signed at the home of Jean Unzat (the author's ancestor). (AASM CHL 0/0/2/166).



Others remain almost unchanged: the Bochatay – Bochatay, Derivaz, Borgeat...

↓ On October 20, 1278, Pierre *Bochatres* (Bochatay – Bochatay) is witness during the sale of a piece of land in Le Trétien. (AASM CHL 0/0/1/436).



Tracking the evolution of a family at the end of the 14th century and throughout the 15th century is often complex because some of their lineages may change names several times before specific branches are identified and then given a definitive surname. Sometimes, the mysteries continue to intrigue and offer pleasant surprises. **The same day**, Etienne des Granges is referred to as Etienne *du Crestel* or Etienne *Reymondet*. Michaud Derivaz: Michaud Coquoz. François Morand: François Fournier. Jean Bochatay: Jean Cergneux. Johannod Derivaz: Johannod Duchoud... So much so that a notary, exhausted by so many complications, in the presence of Jean Morand alias Mermet, Jean Morand alias Aymon, Jean Morand alias Murisier, and Jean Morand alias Reymond, in desperation, names a character Jean Morand alias Morand!

The fact that Vallorcine's records for a period starting around 1260, ending around 1450 are very scarce compared to the Salvan's archives, makes all the difference for the researcher. Understanding the development of surnames in Vallorcine is therefore compromised. While in Salvan **only five out of 35 surnames have remained stable over the centuries since their first appearance during the 13th century**, in Vallorcine it seems that 13 out of 16 surnames have not changed. With one crucial distinction: most of these surnames only appear in the second half of the 14th century. It is certain that many of those names have changed at least once since the arrival of the migrants at Vallorcine around 1260.

As this comprehension is out of reach, it is therefore possible that one or more of the families tested may have moved to Vallorcine after the migrants' arrival, coming from the Haute Vallée de l'Arve or elsewhere. However, such a possibility remains highly unlikely. Over the centuries, people constantly left Vallorcine in search of better opportunities; they only came there from neighbouring villages when invited to get married under attractive conditions, a scenario that happened seldom in view of the overall very poor economic situation of this wild place.

In the isolated atoll that is the community of Salvan in medieval times, many alpine farmers and breeders changed their names more than once in their lifetime and are often named with several patronyms or nicknames at the same time. In our work, no need to work on a "surname match frequency analysis" as we have seen in some reports. Over the centuries: **none of the persons appearing in the documentation pertaining to the two valleys is unknown!**

Each family from the Trient and Eau Noire Valleys described in this analysis will find a detailed description of its surname evolution when published as a sub-clade in subsequent Parts.



VIII • FAMILIES BEFORE AND AFTER THE BLACK DEATH IN THE TRIENT AND EAU NOIRE VALLEYS²⁴

“A First in the Alps: When Y-DNA Meets 800 Years of Written History.”

This description is only precise for the **community of Salvan** of the Trient and Eau Noire Valleys as, due to the lack of archival documents, only very limited information is available on the evolution of families who arrived shortly before 1264 in Vallorcine, part of the Eau Noire Valley.

It should be noted that this very precise knowledge of the attribution of surnames has been made possible for Salvan thanks to the *minutarium breviarum*²⁵, a rather exceptional situation in the European Alps²⁶.

In Salvan, only one surname appears in the documentation before 1250, a little less than an additional 40 before 1300, a little more than an additional forty before 1350.

In 1313, the figure of 85 households is given by a seignorial census. According to a precise count established by the author, based on the history of all the families living in the valleys at that time, it seems to be rather 99, representing a population of 580, including the poor. This gives a ratio of approximately 5.9 people per household.

At that time, there are still a number of uninhabited hamlets. Vernayaz for example, located in the Plain of the Rhône, at the exit of the Trient Valley, today the largest village, will record its first inhabitants only during the 16th century.



24. Cf. Bibliographie, Raymond Lonfat, vol. I, *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Raymond Lonfat, vol. II, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Raymond Lonfat, vol. III, *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475, Salvan, Finhaut, Vernayaz*. 2021 (Unpublished). Raymond Lonfat, vol. IV, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475, Salvan, Finhaut, Vernayaz*. 2021 (Unpublished).

25. See "digi-archives.org", under CHL. *Fondation des archives historiques de Abbaye de Saint-Maurice* (Switzerland), an Institution initiated by the author.

26. This is an exceptional chancery register divided into two parts called *majus* and *minus*, but which, in reality, form a single whole, containing around 1,600 parchments covering the second half of the 13th century up to 1345. A significant portion of these documents concern the Trient and Eau Noire Valleys.

What are we to make of the 32 households recorded in the subsidy accounts in 1359 for the entire parish, shortly before a new epidemic, the second in terms of scale, struck the upper Faucigny, the canton of Vaud, and certainly the Trient and Eau Noire Valleys around 1361? Using the same ratio, the population would be estimated at less than 200 people, meaning that it would have decreased by 65 percent in less than 50 years. A disastrous situation.

For a period ending in 1350, we studied 48 families bearing at least 66 surnames, plus around 20 other surnames attributed to families appearing only for a brief period²⁷.

How did the 48 families fare after the Black Death? A complicated task to find out.

Many of the families recorded from 1209 onwards are no longer present after 1350, not surviving the ravages of the Great Plague, or dying out naturally, lacking male descendants. A few, too weakened by the recurring epidemics of the Black Death, unable to effectively manage their family farms and survive, are assimilated into stronger families and change their names²⁸. Some families do not reappear under their names but give rise to some lineages bearing new surnames. Some reappear, disappear before 1475²⁹, without giving rise to new lineages. Some reappear, disappear before 1475, giving rise to lineages bearing new surnames. Some reappear, still present after 1475, without giving rise to new lineages. Some reappear, still present after 1475, giving rise to lineages bearing new surnames. Seven new migrant families from outside the community appear between 1350 and 1475, some giving rise to lineages bearing surnames already in use, still present after 1475, except one disappearing before.

In total, 72 families, including the extinct one will be recorded between 1350 and 1475. The 13 families already present before 1350, joined after 1350 by 24 new families issued from ancient ones, joined by six migrant families, are amounting in 1475 to 43 families with distinct surnames. Over the next centuries a number of them will disappear, partially compensated by some new branches of existing families receiving new surnames.

As a result, 35 families from medieval times, three of them arriving in the Trient Valley between 1400 and 1500 will be part of the analysis³⁰.

27. Only two migrants are recorded between 1200 and 1350, one from Chamonix, Haute-Savoie, who through an attractive marriage brings to Salvan his expertise as a cobbler or shoemaker, and another one from Liddes, Valais (Wallis), who through another attractive marriage brings to Salvan and Finhaut his expertise as a blacksmith. The first family is extinct before 1325, the second one has only one descendant left after the Great Plague, who migrates to Evionnaz, Valais (Wallis), and does not seem to have any descendants.

28. A list and detailed description of these indications can be found in: Raymond Lonfat, vol. II, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Raymond Lonfat, vol. IV, *L'erba, Familles de la seigneurie abbatiale de la vallée du Trient, un monde vide en crise et sa lente reconstruction, de 1350 jusque vers 1475, Salvan, Finhaut, Vernayaz*. 2021. "Familles de Vallorcine" (Unpublished).

29. The year 1475 is a turning point, leading to the conclusion of Volume III mentioned above. At that time, the Savoy family, rulers of this area, were driven out of the canton of Valais and replaced by new rulers, the dizains of Valais (Wallis) allied with the Bishop of Sion.

30. Unfortunately, at this point of time, a number of important ancient families who left Salvan over the last few centuries could not be found so far, the Constantin - Cottentin, the Mermet, the Murisier...

35 TESTED FAMILIES, EXHAUSTIVE INVENTORY OF THE ANCIENT MEDIEVAL FAMILIES FROM THE TRIENT VALLEY³¹

Bochatey - Bochatay	Duchoud	Jacquier
Borgeat	Fournier	Lonfat
Cergneux	Frasseren ³²	Lugon-Moulin
Chappot	Gay - Guex	Lugon
Cheseaux	Gay-Balmaz	Mathey
Claivaz	Gay-Couttet	Moret
Claivoz	Gay-Crosier - Guex-Crosier	Mottier
Coquoz	Gay-des-Combes	Raymond
Décaillet - Caillet	Gay-Fraret	Revaz
Délez	Gross	Veuthey
Délez-Guilloud	Hugon	Voeffray
Derivaz	Jacquemoud	

For Vallorcine, a territory located only in the Eau Noire Valley, the situation is quite different than in Salvan. The area is a *saltus*, a rather wild riverbed subject to winter avalanches. Migrants of Germanic origin arrive shortly before 1264. The prior of Chamonix grants them the right to settle there that year.

It is likely that the migrants arrived via Balme, descended towards the areas of the three future "*dîmes*", Le Tour, Argentièrre, La Rosière, probably very sparsely populated, where the prior settled some of them, before directing others towards Vallorcine³³.

Archives relating to this new community are very scarce for the end of the 13th century, a pivotal moment for discovering the formation of family names, and relatively limited for the 14th century.

In this community, the first family names can be traced back since 1307, all gone. Some still in use today can only be traced back to 1320 for the first one, and a little later for a number of them. It will be many years before a clearer picture emerges of the patronymic names of this village and its many hamlets. Thanks to the preservation of archives, some of them appear in Les Jours de Trient or in the Martigny region, even before being mentioned in Vallorcine.

From that time on, surnames of many people, some of them having since disappeared will emerge from in the documentation: *Abbet, Ancey – Ançay*³⁴, *Alub, Amedei, Allamand, Barberin, Bergier, Marguerand – Berguerand, du Bettex, Bonniat, Bosonier – Bozon, Breysat, Brunet – Burnet, Carrier, Cheneau, Claret, Coduri, Coindat, Colard, Comitès, Corteys – Martin, de Cotaz Corbos – Corbet, Coquar, de Cresta – Nerio, dou Crot, Devillaz, Duc, Dunand, de l'Envers, Fabri, de Fey, François, Girard, Grelant, Johanni, Jugnier, Larsat, Lechyat, Lombard, de Lormey – Corbet, Magnin, Marin, Mermoz – Mermoud, du Molard, Michala, de Monros, du Nant, Nicolet, des Ouches, Pache – Pasche, Pecluz, du Perron, Petry, Pitoudi, de Ponte – Pont-Dupont, Praeys,*

31. The Chappex family was tested with families from Vallorcine. The Moret family from Salvan has no connection with the Moret families from Argentièrre, Bourg-Saint-Pierre, or elsewhere. It has not been possible so far to find a descendant of the Valet family (Giétroz -Finhaut), no longer present in Valais, with a migration to Amiens, France.

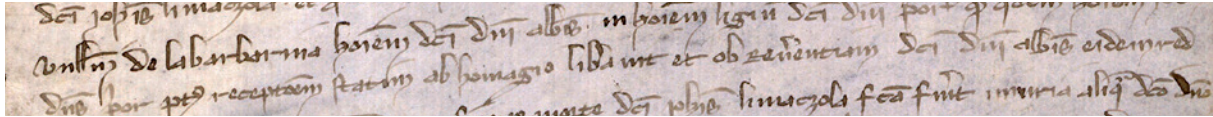
32. Native from Argentièrre.

33. A "tenth part", primarily referring to a compulsory tax or tithe, typically 10% of produce, income, or labor paid to the Church or a ruler.

34. A spelling mainly used in the Fully area of Valais, Switzerland.

Rufin, Roux, Salamon, Semblanet, Sertoris, Tairraz, Tavelle, Thomas, Tyssot, Virimangi, Viviandi, **Vouilloz**, Voutier, Wichar...

↓ A family name is revealed: on October 24, 1320, *Vullus* de la Barbarina (ancestor of the **Vouilloz** family) is sold by the prior of Chamonix to the abbot of Saint-Maurice for the sum of 20 pounds. (AASM CHA 15/2/3).



Many of the families observed around 1400 have died out, changed their names... At the time of the salt tax in 1561 in Vallorcine, a few were still present under their original name, some are new: Ancey – Ançay, Berguerand, Bozon, Brunet – Burnet, Claret, Devillaz, Dunant – Dunand, Jugnier, Mermoz, Molard, Pache – Pasche, Ros – Roux, Tournier, Vouilloz. They are joined by families with new surnames: Blanc, Charlet, Folliguet, du Lay, Noble...

In 1398, each household has to pay the prior of Chamonix a *quarte* of rye³⁵, and Guillaume Abbet delivers 48 *quartes*, meaning there are 48 households. On August 26, 1411, 46 households are recorded during the bishop's visit to Vallorcine. In the following years, the population seems to have fallen sharply. Thirty-six households in 1443, 24 households in 1471, 28 households in 1481...

Sixteen of these families were analysed: those who arrived in Argentièrre around 1260 and immediately moved to Vallorcine; those very closely related to the ones who immediately moved to Vallorcine, but who themselves moved to that village more than a century later (Ancey – Ançay); those very closely related to the ones who moved to Vallorcine but remained in Argentièrre (Carrier, Girard); those who arrived around 1260 in Argentièrre or Vallorcine and migrated soon after to Valais (Abbet, Chappex, Berguerand - Cretton, Moret). All these families have survived for so many centuries, and have seen their descendants take part in the Y-DNA project.³⁶

EXHAUSTIVE INVENTORY OF THE 16 FAMILIES FROM THE EAU NOIRE VALLEY³⁷

Abbet	Burnet	Cretton	Mermoud
Ancey – Ançay	Carrier	Devillaz	Moret
Berguerand	Chappex	Dunand	Pache
Bozon	Claret	Girard	Vouilloz



35. Around 15 liters per *quarte*.

36. Such is the nature of evolving science! The Mugnier family of the Tour d'Argentièrre, whose close kinship with a family from Vallorcine has just been discovered, will be analysed in the relevant cluster publication. Some families of the Argentièrre area, eventually matching with the ancient Vallorcine migrant families, may not have been detected at this stage or may not have been completely tested.

37. A few families from Vallorcine were only discovered after emigrating to the neighbouring hamlets of Giétroz, Châtelard, Trient, les Jours de Trient. The Carrier, Girard, Moret families, part of a large Vallorcine macro-family, are from the Haute Vallée de l'Arve. The Chappot family from les Jours de Trient and the Frasserren family from Argentièrre are tested alongside families from the Trient Valley. It has not been possible so far to find a descendant of the Roux family from Vallorcine, still present in Châtelard one century ago.

IX • GENETIC SAMPLING METHOD

“Written in the Blood: Genetic Genealogy Meets Medieval History in the Alps.”

“Y-Chromosomal DNA (Y-DNA), the Patrilineal Record Keeper!”

“The Y-chromosome’s unique inheritance pattern is central to its utility in deep ancestral research. It is passed exclusively from father to son, making it an ideal marker for tracing direct paternal ancestry. This transmission pathway frequently aligns with the historical inheritance of surnames in many Western societies, including Switzerland, where surnames have traditionally followed the male line. Over generations, mutations accumulate on the Y-chromosome. These mutations, in the form of Short Tandem Repeats (STRs) and Single Nucleotide Polymorphisms (SNPs), create distinct Y-DNA profiles, known as haplotypes (defined by STRs) and haplogroups (defined by SNPs). These profiles allow researchers to differentiate paternal lineages and estimate the time to their most recent common ancestor (TMRCA).”³⁸

The process for creating our Y-DNA database was the following.

- Define the territory analysed: the communities of Finhaut, Salvan, Trient, Vernayaz in the Trient and Eau Noire Valleys, and Vallorcine in the Eau Noire Valley³⁹.
- Master the modern genealogy of the area under analysis, as well as that of neighbouring communities, most of the time available from 1650 onwards.
- Master the medieval genealogy of communities in the area being analysed, specifically from the period when surnames first appeared during the 13th century.
- Master the SDEs, so numerous over the centuries.
- Extract from hundreds of surnames appearing and disappearing over the centuries, the ones leading to surviving families.
- Compile the result: an inventory of 32 families already present in Salvan around 1200 and 16 families present in Vallorcine before 1264, living today either under their original name or after having undergone SDEs.
- Impose an exception: add three families who arrived in the Salvan and Finhaut communities between 1400 and 1500⁴⁰.
- Exclude from the analysis all other families that arrived after 1500 in the above-mentioned communities⁴¹.
- Identify several male descendants for each of the 51 families, either within today’s various communities or in other regions. A number of families, extinct in the Trient and Eau Noire Valleys, are represented in some other places in Valais (Wallis), Switzerland and abroad.

38. Dave Vance. Cf. *Unveiling Medieval Patrilineal Landscapes: a Genetic Genealogy Study of Surnames in Isolated Swiss Valleys*.

39. Many families from Argentière have been tested, a village very close to Vallorcine, given that they eventually belong to the same cluster with some Vallorcine’s families.

40. The three families, three different haplogroups with no connections with the other 32 families will be analysed separately. They are included mainly due to the fact that their descendants really consider belonging to the ancient families of the valley. They would be offended to be forgotten, feeling discriminated against.

41. Few of them in any case, at least until 1900.

- Identify at least two descendants of each family from different lineages splitting at least before 1800⁴².
- Contact these potential candidates, explain the project, convince them to undertake the test on their own free will.
- Explain that only Y-DNA 700 will be accepted in order to participate to the project.
- Get them to register on the ValaisADN-WallisDNA platform and **thus receive their consent to anonymously** share their results with the specialists analysing their data. Apart from a few voluntary exceptions, none of the testers' identities is known from the laboratory.
- Compare their results with others of the same surname variants.
- Exclude from the analysis any tests clearly contradicting their ancestral haplogroup (NPE).
- Compare their results with the Y-DNA database from descendants of medieval families of the ValaisADN-WallisDNA project and their respective thousands of STR matches.
- Compare their results with the largest Y-DNA database in the world, Gene by Gene, Houston, and its thousands of Y-STR 111-67-37-25-12 matches with other families from Switzerland and around the world.
- Find "outsiders" on the international database: matching testers whose ancient origin is outside the Trient and Eau Noire Valleys.



⁴². A very strict threshold in order to completely eliminate the risk that two namesakes, close cousins, might be confronted with different results. In exceptional cases, a family has only been able to provide one tester, as no other branches separated before 1800 were available.

X • EXHAUSTIVE Y-DNA PANORAMA OF THE ANCIENT FAMILIES OF THE TRIENT AND EAU NOIRE VALLEYS – FINHAUT, SALVAN, TRIENT, VERNAYAZ, VALAIS (WALLIS), SWITZERLAND – VALLORCINE, HAUTE-SAVOIE, FRANCE

“From Parchment to Chromosome: A First in Alpine Genetic Genealogy.”

What follows is a first, necessarily dense inventory of these lineages. Readers less familiar with Y-DNA nomenclature may wish to focus on the family names and the brief historical narrative accompanying each cluster, leaving the phylogenetic detail for closer study.

The inhabitants of the Trient and Eau Noire Valleys arrived at various times. They are descendants of ancient peoples who, after leaving Africa tens of thousands of years ago, followed various North African, European, or Indo-European routes before reaching the Alps. No fewer than 21 distinct sub-clades—often providing clues about migratory routes—are now identified among the **51 ancient families**. These groups of humans sometimes share the same ancient or medieval MRCA in the patrilineal line.

The overview covers the three distinct categories that make up the 51 families analysed.

1. Thirty-two families from the Trient Valley who arrived in this area, some not long before 1150-1200 CE, some probably much before.
2. Three families from the Trient Valley who arrived in this area between 1400 and 1500.
3. Sixteen families from the Eau Noire Valley, from the village of Vallorcine (Argentièrre), of Germanic origin, who arrived some time before 1264.

In our description, we use the term “outsider” to refer to any tester’s match whose ancient origin is outside the Trient and Eau Noire Valleys. Some clusters have one or more outsiders, helping to understand the last migration trek and its timing, some others, unfortunately, offer no such clues.

Geneticists have agreed that genomics is the only way to determine when branches split off from one another. Thanks to this new science, we are able to understand when haplogroups have been splitting from each other over time. We can then define the different genetic populations that have coexisted over time in our valleys.

To successfully carry out our project, we decided to work with FamilyTreeDNA, a laboratory providing the most comprehensive tools for studying paternal ancestry, built from high-resolution sequencing data contributed by **tens of thousands of testers worldwide**. FamilyTreeDNA’s Y-DNA haplotree has built up the most detailed publicly accessible map of human paternal ancestry to date,

including **over 100,000 branches and 860,000 unique Y-SNPs**⁴³. A phylogenetic tree using Y-SNPs is offering an unparalleled resource for researchers. The FamilyTreeDNA's Y-DNA haplotree represents living testers and includes over **7,300 ancient male Y-DNA samples** placed from published archaeological studies.

The **51** families are classified into **21** clusters, **14** for the Trient Valley, and **7** for the Eau Noire Valley:

E-M35 E-V12, E-M35 E-V13 (2 families)	p. 38
G-M201 G-Z39367; G-M201 G-CTS342; G-M201 G-Z6779 G-L1354; G-M201 G-Z6779 G-Z2022 (8 families)	p. 39
I-M253 (I1) I-Y23356 (1 family)	p. 40
I-M223 (I2) I-FGC15071; I-M223 (I2) I-CTS10057 (3 families)	p. 40
J-M172 (J2) J-M410 (J2a) J-PF4888; J-M172 (J2) J-M410 (J2a) J-Z438; J-M172 (J2) J-M102 (J2b) (5 families)	p. 41
Q-M242 Q-L245 (1 family)	p. 42
R1a R-M198 R-BY40276 (4 families)	p. 42
R1b R-L151 R-U106; R1b R-L151 R-L21; R1b R-L151 R-DF99 FGC16979; R1b R-L151 R-DF99 R-S21914; R1b R-L151 R-U152; R1b R-L151 R-DF27 R-Z198; R1b R-L151 R-DF27 R-Z274 (27 families)	p. 43

Here is a brief narrative of the haplogroups and sub-clades family lines. In Parts II and following, such description will be made with more details and greater precision, especially for the families where the last “trek” before the arrival in the Trient and Eau Noire Valleys and its timing has been discovered.

E-M35 : Bozon, Devillaz (Eau Noire Valley)

E-M35 is a major Y-DNA haplogroup within **E1b1b**, originating roughly 20,000–30,000 years ago, likely in East or North East Africa. It spread widely across North Africa, the Horn of Africa, the Middle East, and parts of Europe through ancient migrations. Overall, this Y-DNA lineage reflects a long journey: from deep African origins, through Neolithic expansion into Southeastern Europe, and into later regional settlement where a distinct family line took shape and endured through recorded history.

E-M35 >E-V68>E-M78>E-PF2179>**E-Z1902>E-V12**...>E-CTS3346>E-Z5007...>E-BY8506>E-BY8513>E-A32670>E-YP4988 >**E-FTE86872**. This group consists of one family, **Bozon**. They have undertaken **two** Big **Y-700**, with no outsider, one mtDNA. Phylogeographic data and ancient DNA records demonstrate that E-Z1902 and E-V12 remained strictly localised to North East African and Levantine populations during the Stone and Bronze Ages. E-V12 followed a trans-Mediterranean trajectory to Europe. Its presence is linked to more recent, high-mobility maritime trade networks—such as the Phoenician and Carthaginian routes (3,000–2,150 YBP / c. 1000–146 BCE)—and subsequent Imperial Roman military and frontier deployments across the Alps (2,050–1,600 YBP / c. 25 BCE – 425 CE).

43. Spring 2026. The FTDNA's platform features over 12,960 Y-DNA and 25,310 + mitochondrial (mtDNA) ancient connections (7300 are high coverage Y-DNA samples).

E-M35 >E-V68>E-M78>E-PF2179>**E-Z1919**...>**E-V13**...>E-BY3880>E-Y16729>E-FTE85843>**E-FTE85137**. This group consists of one family, **Devillaz**. They have undertaken two Big Y-700, with one outsider, that is **three** Big **Y-700**, two autosomal, one mtDNA. Unlike its brother clade E-V12, a lineage which followed a completely separate, later historical pathway, E-V13 expanded into Europe during early Neolithic farming waves (7,500–7,000 YBP) and more than substantially during the Bronze Age (4,200–3,200 YBP).

G-M201: Bochatay - Bochatay, Coquoz, Duchoud, Moret, Raymond. Borgeat. Voeffray. Délez – Guilloud (Trient Valley)

Haplogroup G-M201 is a paternal genetic lineage whose most recent common ancestor lived roughly 30,000 years ago, likely in West Asia or the Caucasus region. It spread with early Neolithic farmers into Europe, Anatolia, and the Middle East, and today is especially common in the Caucasus. In Europe, it peaks in Southern and Central Europe, especially in Italy and nearby regions like Switzerland.

G-M201 >G-L89 (G2)...>G-P15...>G-L30...>G-L140...>G-PF3345>**G-Z39367**>G-FTF32757>G-D7474>**G-FTD8221**. This group consists of five families representing a macro-family, **Bochatay - Bochatay, Coquoz, Duchoud, Moret, Raymond**. They have undertaken 10 Big Y-700, with two outsiders, that is **12** Big **Y-700**, six autosomal, one mtDNA. The YDNA mutation known as G-PF3345 formed about 11,000 years ago in South West Asia, and its descendent branches, including G-L497, G-CTS342, G-Z6779 and others, account for a large percentage of all Haplogroup-G persons living today. The original Haplogroup-G mutation (G-M201) is much older, having emerged about 40–45,000 years before present, while the age of G-P303 is about 15,000 years before present. Today, G2a (including all its sub-branches), comprises about 5–10% of the total European population. G-Z39367 is one of the smaller descendant-branches of G-PF3345, and includes persons living today in Turkey, Armenia and Switzerland, as we know so far. An ancient G-Z39367 YDNA sample, XAN104, is dated to about 3,500 BCE in Kydonia, Crete. The sub-branch G-FTD7474, which leads to the above Swiss families, split from an Armenian/Turkish parallel branch about 7,000 years ago. YDNA Haplogroup G2a in Europe is associated with migration of first-farming peoples who came from Anatolia into Central and Southern Europe during the Neolithic. However, it is not known if the ancestors of these particular Swiss G-FTD7474 families arrived in Europe during the Neolithic or at a later time.

G-M201 >G-L89 (G2)...>G-P15...>G-L30...>G-L140...>G-PF3345>**G-CTS342**...>G-Y334...>G-Z3292>G-Z43085>G-FT91208>**G-FTC59003**. This group consists of one family, **Borgeat**. They have undertaken two Big Y-700, one autosomal, with one outsider, that is **three** Big **Y-700**. G-L89 (G2) and its downstream branches G-P15, G-L30, and G-L140 represent early European farmer lineages that became well established in Central and Southern Europe. The Borgeat cluster under G-CTS342 was formed 10,550 years ago. The G-Z3292 clade, about 4,200 years old, has a striking distribution, ranging from Sierra Leone to India, but with a consistent pattern of strong representation in North Africa and the Middle East. The downstream clade G-Z43085, about 3,400 years old, is shared with people from Morocco, the Iberian Peninsula, Syria and Germany. This clade could be related to gene flow from the Eastern Mediterranean to the Western Mediterranean during the Roman Empire, or eventually G-FT91208 may have been carried from the North Caucasus to Eastern Europe and then to Western Europe with later nomadic groups. The “Mediterranean link” and a “non-Neolithic arrival” both seem well supported, in any case.

G-M201 >G-L89 (G2)...>G-P15...>G-L30...>G-L140...>G-PF3345>**G-Z6779**>G-U1>G-FGC31390>G-L13>G-Z2024>**G-L1354**>**G-FTG35568**. This group consists of one family, **Voeffray**. They have undertaken **two** Big **Y-700**, one autosomal, one mtDNA, without outsiders. G-P15, G-L30 and G-L140 represent early European farmer branches that became firmly rooted in Central and Southern Europe. G-L1354 could reflect an older Eastern Mediterranean–Caucasus–Balkan lineage that became scattered at low frequency across Europe and the Near East. Its presence in Armenia would likely reflect regional continuity in the broader source area, while its appearance in Czechia (Slavic context), Switzerland, and Marches (Italy) could reflect later spread and fragmentation during late Antiquity. Overall, the pattern fits a layered system of Mediterranean and Balkan mobility, with Byzantine networks as a likely main carrier and steppe-era disruption as a possible amplifier of dispersal. A “non-Neolithic arrival” seems well supported.

G-M201 >G-L89 (G2)...>G-P15...>G-L30...>G-L140...>G-PF3345>**G-Z6779**>G-U1>G-FGC31390>G-L13>G-Z2024>**G-Z2022**...>G-Z6759>G-FGC995>**G-Z6764**. This group, a late arrival during the 15th century, consists of one family, **Délez – Guilloud**. They have undertaken **two** Big **Y-700**, one autosomal, with no outsiders. G-P15, G-L30 and G-L140 represent early European farmer branches that became firmly rooted in Central and Southern Europe. G-Z6764, around 3,800 years old, reflects a lineage possibly originating in the Anatolian–South Caucasus interface region at its origin, later spread into a very wide but fragmented distribution through repeated historical mobility rather than a single expansion event. Its presence across virtually all of Europe and also in many parts of the Middle East, as well as far as Tatarstan, fits better with successive waves of redistribution through large-scale connectivity systems. A “non-Neolithic arrival” seems well supported. Instead, it could be a lineage potentially associated with repeated historical mobility, possibly including movements related to the Roman Empire.

I-M253 (I1): Chappex (Eau Noire Valley)

Haplogroup I-M253 (I1) is a lineage native to Northern Europe whose deeper roots extend back to Mesolithic hunter-gatherer populations that survived the last Ice Age. While its ancestral origins are ancient, the I1 lineage experienced significant population growth during the Bronze and Iron Ages, shaping its modern distribution across Northern and Central Europe.

I-M253 (I1) >I-L840...>I-DN29>I-Y2592...>I-S6346...>**I-Y23356**> I-Y61058...>I-FTC94912>I-FTC93295>**I-FTG35597**. This group consists of one family, **Chappex**. They have undertaken two Big **Y-700**, with seven outsiders and one matching Y-111, that is **nine** Big **Y-700**, four autosomal, two mtDNA. The downstream branches I-DN29, I-S6346, and I-Y23356 represent later diversification within the I1 lineage. Their phylogenetic structure is consistent with the regional differentiation that occurred as I1 populations expanded from Northern Europe into parts of Central Europe, including areas near the Alpine foreland. While the precise migration routes remain uncertain, these branches likely emerged as descendant communities became geographically established and increasingly localised during the late prehistoric and early historic periods.

I-M223 (I2): Claret, Pache (Eau Noire Valley). Derivaz (Trient Valley)

Haplogroup I-M223 (I2) is a paternal lineage that originated roughly 14,000–17,000 years ago in Europe, likely among Ice Age hunter-gatherers. Some sub-clades became common in Central and Western Europe, particularly in regions like Germany, the Netherlands, and Britain. Some sub-clades expanded further during the Bronze Age and early Germanic migrations.

I-M223 (I2) >I-P222>I-CTS616>**I-FGC15071**...>I-Z2059...>I-S16056>I-Y176112>I-BY65196>**I-FT304380**. This group consists of two families representing a macro-family, **Claret, Pache**. They have undertaken four Big Y-700, with one outsider, **five Big Y-700**, two autosomal, one mtDNA. I-FGC15071 is a more recent downstream branch that represents a specific paternal family line within I-M223 (I2). The common ancestor of these families was a single man who probably lived in a Germanic world during the 10th century.

I-M223 (I2) >I-P222>I-CTS616>**I-CTS10057**...>I-P78...>I-A427...>I-FGC70552>I-FTA40070>**I-FTH11145**. This group consists of one family, **Derivaz** (one branch), **one Big Y-700**, one autosomal, with no outsiders. I-CTS10057 is a more recent downstream branch that represents a specific paternal family line within I-M223 (I2). The cluster's ancestors may belong to the Roman Age Balkan cultural group.

J-M172 (J2): Revaz, Veuthey (Trient Valley). Claivoz (Saint-Maurice area). Chappot, Mathey (Trient Valley).

J-M172 (J2), is an ancient paternal Y-DNA haplogroup, that formed about 32,000 years ago. Its many child haplogroups (sub-clades) are found throughout the world, everywhere from latitudes in Southern India to Northern European latitudes. Today it is found in greatest abundance in Georgia, Lebanon, Iraq, Turkey, Iran, as well as in various Jewish groups. J2 spread widely throughout the Mediterranean Sea region, Middle East, and parts of Europe, often associated with early farmers, land and sea traders, and ancient civilizations. J2 represents one of the key paternal lines connecting Europe to ancient populations of the Aegean, Anatolia, and the Balkans. J2's major sub-branches are J-M102 and J-M410, both of which formed about 28,000 years ago.

J-M172 (J2) >**J-M410 (J2a)** ...>J-L24...>J-L25>**J-PF4888**>...>J-L264>J-FGC5925>J-FGC38880>J-Z39960>**J-FTG34920**. This group consists of two families representing a macro-family, **Revaz, Veuthey**. They have undertaken **four Big Y-700**, two autosomal, with no outsiders. J-M410 is a major branch of J2 that is predominantly found in the Mediterranean Sea countries and islands, Asia Minor, the Middle East, and Europe, with over 26,000 tested descendants. It is linked with Jewish populations and Ashkenazi Cohanim. J-PF4888 is one of three major branches of J-L25. Brother branches include J-Z438 and J-F3133 and it is estimated that the three brother branches formed about 9,000 years ago. Ancient remains (dated to about 1400 BCE) of a Phoenician/Carthaginian, from a grave site in Tunis, Tunisia, were identified as J-L264. The J-L264 lineage, formed about 8,000 years ago, is associated with ancient Phoenician/Carthaginian and Eurasian migrations.

J-M172 (J2) >**J-M410 (J2a)** ...>J-L24...>J-L25>**J-Z438**>...>J-FGC35503...>J-FGC35489>J-FGC35470>J-FGC35474>J-FT86817>**J-FTH66567**. This group consists of one family, **Claivoz**. They have undertaken **two Big Y-700**, one autosomal, with no outsiders. J-Z438 is an ancient branch of L25 which formed about 9,000 years ago, likely in the Fertile Crescent region of Turkey, Iraq, Syria,

Lebanon, Israel, Palestine, Jordan, and associated with the ascent of farming, as observed with all the J2 haplogroups. J-Z438 was identified early on with the unique characteristic Y-STR marker known as DYS445=6. DYS445=6 was found in early (ar. 2005) DNA testing of indigenous populations of Turkey (Anatolia).

J-M172 (J2) >J-M102 (J2b) ...>J-L283...>J-Z615...>J-Z1297...>J-Z631...>J-BY92405>J-FTD29000>J-FTD28647. This group consists of two families representing a macro-family, **Chappot, Mathey**. They have undertaken four Big Y-700, one matching Y-37, one autosomal, one mtDNA, with seven outsiders, one matching Y-37, that is **11 Big Y-700**, six autosomal, four mtDNA. J-M102 is a major branch of J2 which formed as part of expansions into Southeastern and Central Europe, where J2 lineages became established alongside local populations. These branches are often linked to long-distance cultural and economic networks that connected the Mediterranean world with inland Europe during Antiquity. Haplogroup J-L283 is a major European and Mediterranean branch of J-M102(J2b), with the highest modern frequencies found in the Western Balkans and a notable presence in Italy, often spreading via Roman-mediated migration. It likely originated in the Caucasus/ West Asia before migrating through the Balkans.

Q-M242: Cergneux (Trient Valley)

The paternal line belongs to **Y-DNA haplogroup Q2-M242**, a lineage whose deepest origins lie in Northern Eurasia and Central Asia, where it emerged among Upper Paleolithic hunter-gatherer populations. While haplogroup Q is best known for its branches in Siberia and the Americas, the Q2 lineage represents an early Westward extension that became established in parts of Eurasia long before historical times.

Q-M242 >Q-L275 (Q2)...>Q-L245...>Q-FT399443>Q-BZ6>Q-FT117032>Q-BZ301>Q-BZ302>Q-FTG35779. This group consists of one family, **Cergneux**. They have undertaken two Big Y-700, with three outsiders, that is **five Big Y-700**, four autosomal, four mtDNA. Q-L245 reflects ancient diversification as Q2 populations spread across Inner Eurasia and Eastern Europe, likely during the late prehistoric period. Over time, some branches moved further West and may have come in with Neolithic or Bronze Age migrants, integrating into European populations through gradual migration and assimilation rather than large-scale population replacement.

R1a R-M198: Cheseaux, Hugon, Lugon-Moulin, Lugon (Trient Valley)

Haplogroup R1a R-M198 is a major paternal lineage that formed about 16,000–12,000 years ago, likely in Eurasia (Eastern Europe or Central Asia). Its bearers became widespread during the Bronze Age migrations, commonly linked to Indo-European speaking populations. Today it is common in Eastern Europe, Central Asia, and South Asia.

R1a...> R-M198>R-YP1051>R-BY40276>R-FT196458>R-FTC69546. This group consists of four families representing a macro-family, **Cheseaux, Hugon, Lugon-Moulin, Lugon**. They have undertaken **nine Big Y-700**, three autosomal and four mtDNA tests, with no outsiders. Because it sits on the relatively rare R-YP1051 side of R-M198, rather than the much larger R-M417 branch, BY40276 represents an uncommon lineage within the broader R1 family.

R1b R-L151

Haplogroup R1b R-L151 is a major paternal lineage that expanded from the Eurasian Steppe in Western and Central Europe about 4,500–5,000 years ago during the Bronze Age. It is associated with the spread of Indo-European cultures, including the Corded Ware and Bell Beaker cultural expansions across Europe.

R1b R-L151 R-U106: Fournier, Jacquier (Trient Valley)

R1b...> R-L151>R-U106>R-Z2265...>R-Z156...>R-S22047...>R-FGC46344>R-FGC68956>R-S19552>R-FGC68946>R-FT422239>R-FTD7977. This group consists of two families representing a macro-family, **Fournier, Jacquier**. They have undertaken six Big Y-700, with two outsiders, that is **eight Big Y-700**, three autosomal, two mtDNA. Haplogroup R-U106 is one of the main branches of R1b in Northern and Northwestern Europe. It is most common today in regions historically associated with Germanic-speaking populations, including Germany, the Netherlands, Scandinavia, and parts of the British Isles. The presence of this terminal SNP in Switzerland reflects the regional diversification of R-U106 lineages and their integration into long-established Central European populations over many centuries.

R1b R-L151 R-L21: Décaillet – Caillet, Frasseren, Jacquemoud, Lonfat (Trient Valley and Argentièrè)

R1b...> R-L151>R-P312>R-Z290>R-L21>R-S552>R-DF13>R-Z39589>R-DF49>R-BY222288>R-FT413073>R-FTC18469>R-FTH36498. This group consists of four families representing a macro-family, **Décaillet – Caillet, Frasseren, Jacquemoud, Lonfat**. They have undertaken 14 Big Y-700, with one outsider, that is **15 Big Y-700**, five autosomal, three mtDNA. R-L21 is a paternal lineage whose origins lie in Western Europe, emerging during the Late Neolithic to Early Bronze Age. While it is most strongly associated today with Atlantic Europe, some downstream branches expanded into Central Europe through a range of prehistoric and historic population movements. The presence of this terminal SNP in Switzerland reflects the regional diversification of R-L21 lineages and their integration into long-established Central European populations over many centuries.

R1b R-L151 R-DF99: Dunand (Eau Noire Valley). Gross (Trient Valley)

R1b...> R-L151>R-P312>R-Z46516>R-FGC84729>R-DF99>R-29643>R-FGC16982>R-S16136>R-FGC16979...>R-BY15497>R-BY15485. This group consists of one family, **Dunand** (one branch). They have undertaken **one Big Y-700**, with no outsiders. Haplogroup R-DF99 is a downstream branch of R1b-L21 that emerged during the Bronze Age or later within Western Europe. The terminal SNP identified in the Alps represents a more recent subdivision of this lineage that likely developed after R-DF99 had already diversified. Its presence reflects the long-term settlement and regional evolution of paternal lineages in Central Europe, although the precise migration routes and historical processes that led to its establishment remain uncertain.

R1b...> R-L151>R-P312>R-Z46516>R-FGC84729>R-DF99>R-29643>R-FGC16982>R-S16136>R-S21914>R-BY15507>R-FTH65525. This group consists of one family, **Gross**. They have undertaken **three Big Y-700**, with no outsiders. Haplogroup R-DF99 is a downstream branch of R1b-L21 that emerged

during the Bronze Age or later within Western Europe. The terminal SNP identified in Switzerland represents a more recent subdivision of this lineage that likely developed after R-DF99 had already diversified. Its presence in Switzerland reflects the long-term settlement and regional evolution of paternal lineages in Central Europe, although the precise migration routes and historical processes that led to its establishment remain uncertain.

R1b R-L151 R-U152: Ancey – Ançay, Berguerand, Burnet, Carrier, Cretton, Girard, Mermoud, Moret, Vouilloz (Eau Noire Valley and Argentière)

R1b... >**R-L151**>R-P312>R-Z46516>R-ZZ11>**R-U152**>R-L2>R-Z49>R-S15208>R-FT424363>R-BY3620>R-FT380129>R-FTC62186>**R-FTC68494**. This group consists of nine families representing a macro-family, **Ancey – Ançay, Berguerand, Burnet, Carrier, Cretton, Girard, Mermoud, Moret, Vouilloz**. They have undertaken **18** Big **Y-700**, three matching Y-37, with no outsiders, four autosomal, three mtDNA. **R-U152** is a descendant of R-L151, commonly found in regions associated with the ancient Celtic and Roman populations, particularly in Italy, France and Switzerland. The common ancestor of these families was a single man who probably lived in a Germanic world during the second half of the 9th century.

R1b R-L151 R-DF27: Claivaz, Délez, Gay - Guex, Gay-Balmaz, Gay-Couttet, Gay-Crosier - Guex-Crosier, Gay-des-Combes, Gay-Fraret, Mottier (Trient Valley), **Abbet** (Eau Noire Valley).

R1b... >**R-L151**>R-P312>R-Z46516>R-ZZ11>**R-DF27**>R-Z195>**R-Z198**>R-CTS4188>R-S14445>R-Z29704>R-BY3268>R-Y26745>R-BY27745>**R-BY27682**. This group consists of nine families representing a macro-family, **Claivaz, Délez, Gay - Guex, Gay-Balmaz, Gay-Couttet, Gay-Crosier - Guex-Crosier, Gay-des-Combes, Gay-Fraret, Mottier**. They have undertaken **18** Big **Y-700**, with **16** outsiders (14 from Valais), that is **34** Big **Y-700**, six autosomal, four mtDNA. R-Z198 is a downstream branch of R-DF27 that expanded primarily across the Iberian Peninsula and parts of Southwestern France during the Bronze and Iron Ages. While its highest frequencies are found in Western Europe, some downstream lineages spread into regions North of the Alps, including parts of Central Europe. The Swiss terminal SNP represents a later stage in the diversification of this lineage, reflecting its long-term presence and regional development within Central Europe.

R1b... >**R-L151**>R-P312>R-Z46516>R-ZZ11>**R-DF27**>R-Z195>**R-Z274**>R-DF17...>R-FGC14113>R-Y134059>R-Y134065>R-S1302>**R-FTF29279**. This group consists of one family, **Abbet**. They have undertaken **three** Big **Y-700**, one autosomal, with no outsiders. R-Z274 is a downstream branch of R-DF27, a major Western European lineage of R1b-P312 that expanded primarily across the Iberian Peninsula and SouthWestern France during the Bronze Age. While DF27 is most strongly associated with Iberia, some downstream branches are found more widely across Western and Central Europe. The presence of a terminal SNP in Switzerland reflects a later stage in the diversification of this lineage and its long-term integration into Central European populations.



XI • POPULATIONS ON THE MOVE AND GENETIC DIVERSITY

“Every Haplogroup Tells of a Journey Once Taken.”

Populations have always been on the move. The Mesolithic Western Hunter-Gatherers, the Neolithic Transition with the arrival of the first European farmers, the Metal Ages, the steppe Herders and the Balkans expansions, the West Asian and mediterranean antiquity migrations, the Middle Ages, without talking about today...

In our research, an objective has been fulfilled, finding out where the first occupants of two valleys from the Alps were from, their variety of origins, and for some of them, the understanding of their timing of arrival and last trek.

When did the 21 clusters arrive?

We realised that **within the same haplogroup** with distinct sub-clades, a few of them may have arrived in the Trient and Eau Noire Valleys a very long time ago, and some others, with certainty, only around 1100 CE. The main reason is that the alpine abbots, among whom the ones of the monastery of Saint-Maurice d'Agaune, lords of the Salvan's community, have been actively encouraging migrants to move to their territories. Already before but mostly around 1000 – 1200 CE, settlers belonging to ancient haplogroups living somewhere along some monasteries in Switzerland and South East Germany may well have been the last to reach a land shaped by successive waves of migration and population replacement.

In our analysis, some such migrations are well understood, many are still unresolved. Out of 21 sub-clades, eight of them are offering clues of their origin and timing of migration to the Trient and Eau Noire Valleys. The proportion for the families is a little different: out of 51 families, 26 have their last trek known, as well as their timing of arrival, within a determined c.i.

The clues are most of the time the same: a lineage whose TMRCA aligns with the migration period and shows genetic links to the presumed area of origin, for example Bernese Oberland, Switzerland, supporting a migration linked establishment.

Eight families have close matches, around 1000... 1100 CE with testers from Central Switzerland or South East Germany. For the remaining one, the distance between their MRCA and the first match is so important that it leaves a gap too substantial to make the comprehension of where their ancestors were living possible.

In the future, a weakness should be corrected which may bring some clues about various sub-clades! The canton of Valais (Wallis) boasts an extraordinary wealth of archaeological finds. The quantity of ancient bones preserved across many regions of the canton is spectacular. There are, however, exceptions. For example, no bones have been preserved in the Trient and Eau Noire Valleys. Furthermore, the canton has apparently not yet carried out Y-DNA and mtDNA analyses and is therefore unable to provide the laboratory's database (containing over 7,300 ancient Y-DNA samples) with any points of comparison⁴⁴.

44. A project is currently underway, offering hope that some data will become available in the coming years.

Out of in excess of 200 Y-DNA 700 tests, over 150 tests were selected for the analysis⁴⁵, not including hundreds of “outsiders” with distant matches.

During the tests collection period, it became evident and necessary to test numerous families from neighbouring villages, where families from the Trient or Eau Noire Valleys may have migrated over the centuries without leaving any traces in the documentation. Many dozens of supplementary Y-DNA 700 tests have then been conducted.

It will be interesting at some point to compare the **genetic diversity** of the Trient and Eau Noire Valleys with other areas of the Alps. In the future, the analysts will surely take advantage of the latest available techniques, avoid a number of pitfalls, and offer similar insights about haplogroups and sub-clades.

- Samples will no longer be chosen at random within one target region or another. The analysts will consider modern **and** medieval genealogy. They will obviously remove from their analyses some highly related individuals, a rather rare event which modern genealogy has mastered. Benefiting by their knowledge of medieval genealogy, they will avoid a very important bias: testing persons with ascendants who arrived in the region under analysis only a few centuries ago, with remote and uncommon origins⁴⁶. Today, in view of the dramatic changes in the population’s composition of even remote places where old families are gradually replaced by newcomers, falling into such traps would produce significant distortions.
- The analyses will no longer be based on, for example, 23... 37 Y-STRs, preventing the researchers from discovering modern and ancient MRCA as well as medieval macro-families, essential for establishing correct statistics, when at least 600 or even up to 838 Y-STRs are now available.
- The aspect of fertility and reproductive capacity variations between clusters over the centuries will be considered. Very often, the founder effect has been ignored. In the future, the researchers will obtain very precise sub-clades in view of the high Y-STRs level obtained. Moreover, they will benefit from precise medieval information about a cluster’s EKA. A man identified in 1250 in the documentation, at the documented origin of 10 families living today under different surnames, generating a large population, has a completely different influence on the actual genetic diversity of a specific community than a man also identified in 1250, at the source of one single family whose descendants are incomparably fewer.

The objective of this research is primarily focused on finding the origin of the migrants who gradually populated the two valleys. Calculating the percentages of haplogroups and sub-clades for today’s population has been done in the past many times by other researchers. The results were unfortunately not adequate, suffering from too many biases as described above.

45. A few of them were testers from Argentière, with evident kinship and same EKA that some of Vallorcine’s families.

46. In the author’s village, around 1900, 95% of the population was descendant of families already present in the Trient Valley before 1200 CE. Around 1945, just before the author’s birth, the percentage was around 85%. Today, that percentage is around 40%. This situation is representative of the relevant evolution of the Trient and Eau Noire Valleys, and probably of most Alpine valleys.

As medieval genealogy confirmed by an in-depth genetic analysis has enabled us to understand exactly families' structures, in line with our target of discovering such structure as closely as possible as the last migration times, we will use such data to calculate the sub-clades' population percentages. **Consequently, only the unique EKA (or ancient MRCA) of today's many families will be taken into consideration.**

An obvious example can be given with the R1b R-L151 R-DF27 R-Z198 cluster. A calculated MRCA, R-BY27682, born around 700 CE within a rather large confidence interval (c.i.) from around 374 until 978 CE, is migrating from Central Switzerland towards Valais (Wallis). He arrives at the proximity of the monastery of Saint-Maurice d'Agaune, most probably later, around 850 CE. One of his descendants remains in that area, still represented today under a specific family name. Two of his descendants move to the "*Mont de Salvan*", one to a wild, inhospitable and lost place called Le Trétien, giving birth over the centuries to a family still represented today, the other one to the Bioley, above Salvan, giving birth to eight families still represented today. Another one of his descendants stays in the Sion area, and sees his descendants stay in Savièse and other places of the Val d'Hérens and the surrounding areas, ten families in total still represented today. This ancestor gave birth to (so far discovered) 21 families.

One can easily imagine that researchers today, not aware of this situation, testing many or all the 21 families instead of only one or a few, would obtain a very wrong distribution of such a sub-clade at the turn of the first millennium.

The unique geography of the two valleys inherently fostered conditions of genetic isolation. This limited contact with outside populations had consequences: preservation of lineages, unique genetic variants, and ancient Y-DNA that might have been lost in more cosmopolitan populations, and founder effects. If the valleys were initially settled by a small number of families or individuals, founders, their specific genetic profiles, and of course their Y-DNA could become disproportionately common in subsequent generations due to chance and limited initial genetic diversity.

To understand the impact of our method on statistics, we compare the percentage of the various haplogroups and sub-clades enumerated in the former chapter, once on the basis of the tested families of today, once on the basis of their common ancestor discovered at medieval times, mostly during the 13th century and a few times already at the end of the 12th century. **Being much closer to the migration times is producing a much more robust and precise analysis, especially when we look at examples like the one of the calculated R-BY27682 MRCA, issuing a lineage that survived in a wild and lost place for centuries without expanding, and another that virtually exploded over time.**

REALITY OF MIGRATORY MOVEMENTS							
Percentage of the number of families for each haplogroup and sub-clade between today and 1250 CE							
Excluding the three late comers families							
	Haplogroups and sub-clades	Salvan and Vallorcine: number of families today	%/ 48 families	Salvan: number of families around 1200	Vallorcine: Number of families around 1300	Total: number of families around 1200-1300	%/ 26 families
1	E -M35 E-V12	1	2.08%		1	1	3.85%
2	E -M35 E-V13	1	2.08%		1	1	3.85%
3	G -M201 G-Z39367	5	10.42%	1		1	3.85%
4	G -M201 G-CTS342	1	2.08%	1		1	3.85%
5	G -M201 G-Z6779 G-L1354	1	2.08%	1		1	3.85%
6	I -M253 (I1) I-FTC93295	1	2.08%	1		1	3.85%
7	I -M223 (I2) I-FGC15071	2	4.17%		2	2	7.69%
8	I -M223 (I2) I-CST10057	1	2.08%	1		1	3.85%
9	J -M172 J-M410 (J2a)	2	4.17%	1		1	3.85%
10	J -M172 J-M102 (J2b)	2	4.17%	2		2	7.69%
11	Q -M242 Q-L245	1	2.08%	1		1	3.85%
12	R 1a R-M198 R-BY40276	4	8.33%	1		1	3.85%
13	R 1b R-L151 R-U106	2	4.17%	1		1	3.85%
14	R 1b R-L151 R-L21	4	8.33%	2		2	7.69%
15	R 1b R-L151 R-DF99	1	2.08%		1	1	3.85%
16	R 1b R-L151 R-U152	9	18.75%		5	5	19.23%
17	R 1b R-L151 R-DF27 R-Z198	9	18.75%	2		2	7.69%
18	R 1b R-L151 R-DF27 R-Z274	1	2.08%		1	1	3.85%
	TOTAL	48	~100%	15	11	26	~100%

This study helps to determine if certain lineages are over- or under-represented in the two valleys, potentially indicating founder effects or long-term genetic drift. Over 800 years, thanks to more prolific ancestors, some clusters have evolved more positively than others.

The comparison with some existing reports on the subject is not possible at this stage for reasons explained formerly, the numerous biases being too substantial. Nevertheless, such information will be available by the results obtained by some communities studied within the ValaisADN-WallisDNA project⁴⁷.

The sub-clades statistics are the only one of interest for this work. These will be detailed in the study of each cluster. Calculations for general haplogroups would give the following results.

E cluster percentage of 7.7% was diluted down to 4.16% over the centuries, a reduction of around 46%, mainly due to the fact that it did not produce new families compared with some other sub-clades.

G cluster percentage of 11.5% increased to 14.58% over the centuries, a growth of around 27%, a modest rise considering that the three families existing in 1200 gave birth to seven families today.

47. The macro-families of the ValaisADN-WallisDNA project still under construction (presently around 650 testers, most of them descendants from medieval families) are not yet widely studied except for the Val d'Hérens project, very advanced and exceptionally well built.

I1 cluster percentage of 3.85% was diluted down to 2.08% over the centuries, a reduction of around 46%, mainly due to the fact that it did not produce new families compared with some other sub-clades.

I2 cluster percentage of 11.54% was diluted down to 6.25% over the centuries, a reduction of around 46%, mainly due to the fact that it did not produce new families compared with some other sub-clades.

J2 cluster percentage of 11.54% was diluted down to 8.34 % over the centuries, a reduction of around 28%, even though it produced one more family.

Q cluster percentage of 3.85% was diluted down to 2.08 % over the centuries, a reduction of around 46%, mainly due to the fact that it did not produce new families compared with some other sub-clades.

R1a cluster percentage of 3.85 % more than doubled to 8.33% over the centuries, an increase of around 116%, mainly due to the fact that it produced three new families compared to other sub-clades which did not.

The various R1b sub-clades representing today around 54,16%, were in reality only 46.16% 800 years ago, an increase of around 16%, not in line with the new 14 families created by the original 12 families existing around 1200.

A word about the Walser's migrations, a phenomenon being at last seriously studied following the discovery of the largest colony within the Franco-Provençal world, Evolène, Valais (Wallis)⁴⁸. As per the time of this publication, no families from the 51 studied within the Trient and Eau Noire Valleys seem to have a Walser origin. Only two of them issued from an EKA living in Salvan around 1200 CE match various Walser families from Bernese Oberland, Oberwallis as well as North Italy and Graubünden who migrated from Bernese Oberland to Oberwallis around 800 or 900 CE. This EKA's ancestor, like many other families' ancestors from the Trient and Eau Noire Valleys and so many neighbouring valleys, migrated most probably from the Emmental and Simmental Valleys or Central Switzerland through the usual passes, the col des Mosses, the col du Pillon, the col de la Croix, leading to Aigle, Bex, an area belonging to the monastery of Saint-Maurice d'Agaune⁴⁹, also lord of Salvan in the Trient Valley, where abbots sent so many migrants of Germanic origin over the centuries.

This exhaustive panorama of the Trient and Eau Noire Valleys original population genetics is not only benefiting from the revolutionary new genome-wide data technique, but complemented by medieval sources, providing a much greater depth and resolution for understanding how the communities saw their demographic process shape the actual genetic structure of their descendants.

The genetic research offers the potential to uncover previously unknown connections between families, both within and between valleys, and even more important, connections with "outsiders" from Switzerland or other European countries. Providing an independent validation for historical accounts of migration, settlement, and persistence.



48. A fantastic achievement from Charles-Albert Beytrison and Hervé Mayoraz, researchers who have successfully built a similar material as the one of this study for their own area, the Val d'Hérens, Valais (Wallis), as well as an incredible genealogy for all the families from medieval times until today.

49. In medieval times, very numerous are the mentions of *Theutonici*, *Allamand*... living around that zone.

XII • STRENGTHS OF THE ANALYSIS

“The following pages set out why this method itself is significant; the concluding chapter will then turn to what it has concretely revealed.”

« Beyond individual family histories, this study is poised to contribute to a broader understanding of micro-evolutionary processes. The isolated Swiss valleys, with their documented histories and relatively stable populations over extended periods, serve as valuable natural laboratories for observing the effects of genetic drift, founder effects, and long-term lineage survival in geographically structured human populations. By documenting Y-DNA lineages, their frequencies, their geographic distributions, and their estimated times of origin or divergence, this research can provide empirical data on how these fundamental evolutionary forces have operated over centuries within known historical and geographical frameworks. This contribution extends the relevance of the findings beyond Swiss genealogy into the wider field of human population genetics.

Finally, the outcomes of such research can have a profound cultural resonance. For descendants of these Swiss valley families, the discovery of tangible genetic links to their deep ancestral past can be a powerful experience, fostering a renewed interest in local history, the preservation of historical records and oral traditions, and the safeguarding of the unique cultural heritage associated with these founding families and their enduring legacies. Thus, rigorous scientific investigation into the genetic past can catalyze a deeper appreciation and engagement with the historical and cultural narratives that shape present-day identities »⁵⁰

This report has demonstrated a comprehensive strategy for employing genetic genealogy, with a primary emphasis on Y-DNA, tracing links back to the medieval period. An interdisciplinary approach is more than essential. The careful and critical integration of genetic findings had to be done with meticulous historical, onomastic and traditional genealogical research. Both together bring some serious lights and a successful approach to the complex tapestry of the past. Often, the medieval information is perfectly in line with the genetic results. Sometimes, corrections are evident, having to do with medieval miscomprehensions or absence of information having led to assumptions proving inadequate.

This work has offered rather fantastic discoveries, large macro-families formed just before the arrival of archival information, surprising MRCAs with families living in neighbouring villages or other Swiss and foreign locations. It has more than once confirmed logical assumptions made when the documentation was not sufficient for confirming formal proofs.

Critical for the project, was discovering specific sub-clades defined by a series of downstream SNPs, absolutely necessary to refine ancestral connections to the medieval time frame and link them for a better comprehension of the migrations inside the two valleys. We first identified potential clusters of men who shared a surname and appear to be paternally related based on their Y-STR profiles. Once such clusters were identified, individuals got high resolution Y-SNP testing,

50. Dave Vance. Cf. *Unveiling Medieval Patrilineal Landscapes: a Genetic Genealogy Study of Surnames in Isolated Swiss Valleys*.

confirming the deeper ancestral connections, with a calculated TMRCA. Specific unknown branches appearing, not spotted in the relevant archival sources, not based on legends or assumptions, would then bring some modifications to the family's history. On the other hand, some calculated dates of branches with a modern precise timing, will have the modern genealogist correct the genetic information.

The main strengths of this analysis can be resumed as follows.

- It is taking place in two secluded valleys where the isolation has limited extensive inward gene flows, facilitating the comprehension of the medieval family's genealogies.
- It has studied a population with a mobility only directed outwards to the Franco-Provençal world exclusively. An extremely limited inflow of newcomers has permitted us to detect and reject all sorts of admixture and minimise the noise eventually produced by continuous external Y genetic input.
- It has studied surnames from their first appearance around 1200 CE and onwards, an exploration seldom completed in the Alps, the result of 20 years of research work.
- It has studied the multiple medieval and post-medieval documented changes of surnames, an absolute necessity for a comprehensive analysis, a phenomenon not even known by some medievalists. It has analysed thousands of documents from well-documented archival collections, enabling the understanding of surnames' transformation process.
- It has selected descendants of 32 families present around 1200 CE and before, descendants of 16 families whose ancestors arrived around 1260, descendants of three families whose ancestors arrived before 1500. No other more recent settlers are part of the study.
- It has exclusively tested anonymous official descendants of medieval families benefiting from a direct patrilineal line, through one, two, three or more subsequent surnames over the centuries. Such testers benefit from 700 – 800 years genealogical trees, 23 – 26 generations.
- It has tested at least two, but very often many more descendants of one specific EKA belonging to different branches, having split at least before 1800 CE.
- It has integrated genetic and historical data for each of the 51 families.
- It has outlined the 21 genetic clusters of the two valleys in chronological order.
- It has evaluated for each family the correlation between the medieval genealogical research and the genetic results.



XIII • Y-DNA AND MEDIEVAL RESULTS CORRELATION

“Ancestors Confirmed: A First Encounter Between Y-DNA and Medieval Archives in the Alps.”

For each of the 51 families to be analysed in subsequent Parts, an analysis of the correlation between medieval archival data and Y-DNA results will be presented, along with their phylogenetic trees. In modern genealogy, the exact dates for each branch are known, although genetic data still provides these with margins of error that can be quite significant depending on the circumstances.

Out of the 51 families, such an analysis is only precise for the 35 families of the Salvan's community, in view of the lack of archives covering the arrival of the Vallorcine settlers. Nevertheless, the analysis of the 16 old families of Vallorcine confirms the author's impressions at the time of *L'erba* publication⁵¹: there were few Germanic migrants. In fact, only six or eventually seven families or group of families (one macro-family is composed of nine families) originating from this place or neighbouring hamlets have a specific Y-DNA signature.

A brief overview of the correlation can be resumed as follows.

Salvan community at medieval times, 35 families

The Bochatay – Bochatay, Coquoz, Duchoud, Moret, Raymond were seen as four different families, the Coquoz and Duchoud having a MRCA dated early 15th century. The genetic results show that they have an earlier MRCA unnoticed in the medieval documentation, but logical. Also, the Coquoz and Duchoud were supposed to descend from the Derivaz; the genetic results show that this is not the case, as they belong to a different sub-clade.

The Borgeat were seen as an independent family, corresponding to genetic results.

The Voeffray were seen as an independent family, corresponding to genetic results.

The Délez – Guilloud were seen as an independent family, corresponding to genetic results.

The Chappot and Mathey were seen as two different families. The genetic results show that they have an earlier MRCA unnoticed in the medieval documentation, a surprise, but logical.

The Revaz and Veuthey were considered two different families. The Veuthey were clearly sharing the same patrilineal lineage as the Cheseaux, Hugon, Lugon-Moulin, and Lugon, another haplogroup. The genetic results show that they share a most recent common ancestor (MRCA) not mentioned in medieval records. Also, the Revaz were thought to descend from the Derivaz, but the genetic results show that this is not the case; they belong to a different haplogroup.

51. Raymond Lonfat : cf. vol I. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349, Salvan, Finhaut, Vernayaz*. 2010. Cf. chap. *Theutonic*.

The Claivoz were seen as an independent family, corresponding to genetic results.

The Cergneux were seen as a family descending from the Bochatay - Bochatay. The genetic results show that the cluster belongs to a different sub-clade even though the medieval archives were formal about it.

The Derivaz were seen as an independent family, corresponding to genetic results.

The Cheseaux, Hugon, Lugon-Moulin, Lugon were seen as an independent family, corresponding to genetic results (850 years later than their MDKA!)

The Fournier and the Jacquier were seen as two different families. The genetic results show that they have an earlier MRCA unnoticed in the medieval documentation, even though a document dating from the end of the 13th century might have hinted at a compensation following an illegitimate birth.

The Décaillet – Caillet, Frasseren, Jacquemoud, Lonfat were seen as four different families. The genetic results show that they have an earlier MRCA prior to the available medieval documentation, a logical surprise. Except for the Frasseren, a family from Argentièrre, Haute Savoie, France, not far away from Salvan and the monastery of Saint-Maurice, probably the first family to clear the land of that place called today Les Frasserands.

The Claivaz, Délez, Gay – Guex, Gay-Balmaz, Gay-Couttet, Gay-Crosier – Guex-Crosier, Gay-des-Combes, Gay-Fraret, Mottier were seen as one independent family, except for the Claivaz living in another hamlet, as well as for the Mottier. The genetic results show that the Claivaz and the Mottier belong to the macro-family, with, for the Claivaz, an earlier MRCA prior to the available medieval documentation, a surprise, but logical.

The Gross were seen as an independent family, corresponding to genetic results.

Vallorcine community at medieval times, sixteen families.

The Bozon were seen as a separate family, corresponding to genetic results.

The Devillaz were seen as a separate family, corresponding to genetic results.

The Chappex were seen as a separate family, corresponding to genetic results.

The Claret and the Pache were seen as two separate families. The genetic results show that they have a MRCA soon before their arrival at Vallorcine.

The Dunand were seen as a separate family, corresponding to genetic results.

The Ancey – Ançay, Berguerand, Burnet, Carrier, Cretton, Girard, Mermoud, Moret, Vouilloz were seen as separate families, except for the Berguerand and Cretton seen as having a recent MRCA. The genetic results show that all the abovementioned families have a MRCA born most probably before his arrival at Argentièrre and Vallorcine. Four families were first observed at Argentièrre, the Ancey – Ançay, Carrier, Girard, Moret.

The Abbet were seen as a separate family, corresponding to genetic results.

A type of analysis is not included in this publication. Some atDNA and mtDNA data are available for the families under review or can be easily obtained. Combining their results with our Y-DNA 700 analysis could eventually allow us to better understand the valleys historical population dynamics.

XIV • SCHLUSSFOLGERUNG

“Vor dem Aufkommen der Genomik blieb nur der Nebel der Erinnerung.”

Während sich das vorangegangene Kapitel mit der Stärke der Methode selbst befasste, wendet sich diese Schlussfolgerung ihren konkreten Ergebnissen zu.

Wir bieten beispiellose Einblicke in die genetische Geschichte und die Migrationen innerhalb dieser Alpenregion. Erstmals konnte dank der genetischen Genealogie die Belastbarkeit der veröffentlichten mittelalterlichen Genealogie überprüft werden – einer Genealogie, die auf der Entdeckung von Dokumenten beruht, die zufällige Spuren von Trägern häufig wechselnder Familiennamen über die Jahrhunderte hinweg liefern, und dies ohne Hilfe jeglicher Geburts-, Heirats- oder Sterberegister. Diese Arbeit liefert das erste Panorama der gesamten Haplogruppen- und Sub-Haplogruppe-Struktur innerhalb dieser beiden Alpentäler sowie eine Studie einer historischen Mikromigration.

Für jede analysierte Familie legen wir die Korrelation zwischen dem patrilinearen Y-Chromosom, dem Familiennamen und den mittelalterlichen Informationen offen. Wir dokumentieren ihre spezifische Sub-Haplogruppe und bestimmen ihre EKAs und MRCAs über verschiedene Zeiträume hinweg. Zudem erforschen wir ihre alten und jüngeren Ursprünge und bestimmen den Zeitpunkt ihrer letzten Migration in die Täler des Trient und der Eau Noire⁵².

Die wichtigsten Stärken der Analyse wurden bereits in einem vorangegangenen Kapitel aufgeführt.

Zusammenfassend lässt sich auf der Ergebnisseite Folgendes festhalten...

- Wir liefern erstmals ein umfassendes Verzeichnis der Sub-Haplogruppen, das durch die ausschliessliche Testung von Nachkommen bekannter mittelalterlicher Familien gewonnen wurde.
- Wir weisen die Vielfalt der Sub-Haplogruppen sowie aufeinanderfolgende Migrationswellen innerhalb zweier eher isolierter Alpentäler nach.
- Wir belegen, dass innerhalb ein und derselben Haplogruppe, die in einem spezifischen, abgeschlossenen Gebiet auftritt, die Sub-Haplogruppen einen sehr unterschiedlichen Migrationszeitpunkt, einen unterschiedlichen letzten Wanderweg und ein unterschiedliches Bevölkerungswachstum über die Jahrhunderte aufweisen können.
- Wir bestätigen die Tatsache, dass in unserer Gesellschaft das Y-Chromosom und der Familienname väterlicherseits gemeinsam vererbt werden, was zu einem entsprechenden Y-Haplotyp und einer entsprechenden Sub-Haplogruppe für jeden Familiennamen führt.
- Wir stellen aussergewöhnliche patrilineare Kontinuitäten von bis zu 850 Jahren fest, mit mitunter bis zu vier Namenswechseln im Laufe der Jahrhunderte.
- Wir entdecken unbekannte und überraschende Makrofamilien, kleine wie grosse – ein Wissen, das für korrekte statistische Berechnungen unerlässlich ist.
- Was die Y-DNA-Verteilung von Haplogruppen oder Sub-Haplogruppen einer bestimmten Gemeinschaft betrifft, so belegen wir, dass Statistiken, die auf

52. Die Teile II, III, IV... XXII werden die Analyse von 51 Familien, gruppiert in 21 Cluster, umfassen.

zufällig ausgewählten modernen Testpersonen beruhen, unzureichend sind, da sie durch mindestens vier Faktoren stark verzerrt werden:

- Zufällige Tests sind nicht akzeptabel, da sie es Forschenden verunmöglichen, Nachkommen von Familien auszuschliessen, die erst kürzlich in das untersuchte Gebiet zugezogen sind.
- Eine Analyse, die auf mindestens 600–848 Y-STR beruht, ist zwingend erforderlich, da eine Analyse mit weniger STRs es verunmöglicht, alte MRCAs zu identifizieren.
- Eine Analyse ohne Kenntnis alter MRCAs ist nicht akzeptabel, da sie die Erkennung der Existenz von Makrofamilien verhindert und somit das Verständnis der Auswirkungen von Gründereffekten verunmöglicht.
- Statistiken, die auf modernen Testpersonen beruhen – selbst wenn eine mittelalterliche Abstammungslinie festgestellt wurde – anstatt auf alten MRCAs einer Familie oder Makrofamilie, die den letzten Migrationen näherstehen, sind unzureichend, da sie häufig verzerrt sind.
- Wir entdecken fremde MRCAs vor der Entstehung der Familiennamen, was Hinweise auf Herkunft und Zeitpunkt der Migranten in ein bestimmtes Gebiet liefert.
- Wir entdecken lokale MRCAs nach der Entstehung der Familiennamen. Wir können den meisten MRCAs, die nach 1180 n. Chr. auftreten, einen Namen geben, ebenso wie präzisen, wahren oder wahrscheinlicheren TMRCAs.
- Wir liefern eine solide Analyse des Korrelationsfaktors zwischen der veröffentlichten mittelalterlichen und modernen Genealogie und der aus der genetischen Y-DNA-Analyse hervorgehenden Realität.
- Wir stellen wenige MPEs und NPEs fest, die aus verschiedenen Gründen resultieren, etwa einem abweichenden biologischen Vater, einer Adoption oder verdeckten Adoption, der Übertragung des mütterlichen Familiennamens, einem verdeckten Babytausch oder einem unentdeckten Namenswechsel... ein Anteil zwischen 3,3 % und 4 %.
- Wir sammeln präzise moderne Daten, die den Labor-Wissenschaftlern künftig helfen können, das Konfidenzintervall (c.i.) der TMRCAs zu verringern.

Schliesslich müssen wir uns den Tatsachen stellen.

Da diese Studie Licht auf die aufeinanderfolgenden Migrationswellen und die demografische Erneuerung wirft, die sich im Laufe der Zeit abgelöst haben, gewährt sie einen Einblick, wie der heutige Zustand durch frühere Bewegungen geprägt wurde.

Es gelang uns, die alten Ursprünge unserer einundzwanzig Sub-Haplogruppen bis in die frühesten Zeiten zurückzuverfolgen.

Ihren letzten Weg bis zu ihrem Auftreten im Mittelalter nachzuzeichnen, erwies sich als schwieriger. Von 21 Sub-Haplogruppen lieferten nur acht belastbare Hinweise auf ihre jüngere Herkunft und den Zeitpunkt ihres letzten Wanderwegs. Auf Familienebene betrifft dies 26 von 51.

Dennoch... Diese Studie beruht auf partizipativer Wissenschaft und befindet sich daher in stetigem Wandel!

Die mögliche Ankunft eines neuen Y-DNA-Testers in verschiedenen globalen Datenbanken mit einer Signatur, die derjenigen eines bestimmten Clusters nahekommt – sei es aus einem alten Fund oder einer neu entdeckten Forschungsarbeit –, kann plötzlich neues Licht auf dessen alte und moderne Geschichte werfen.

ANATOMIE DER GESCHICHTE EINES CLUSTERS

Die Teile II, III, IV... XXII behandeln die Analyse von 51 Familien, die in 21 Cluster gruppiert sind. Es folgt ein kurzer Überblick darüber, wie diese Studien aufgebaut sind. Hier ist das Beispiel eines Clusters.

CHAPPOT (aus Salvan), MATHEY (aus Salvan) Valais (Wallis), Switzerland

Und "Outsiders"

METKER, HEINZEN, NEWCOMER (NEUKOMMET-ER), PIRRO, VOIDE, IMHASLY, BUOL

Cluster J-M172 (J2) > J-M102 (J2b) ...> J-L283...> J-Z615...> J-Z1297...> J-Z631...> J-BY92405> J-FTD29000> J-FTD28647

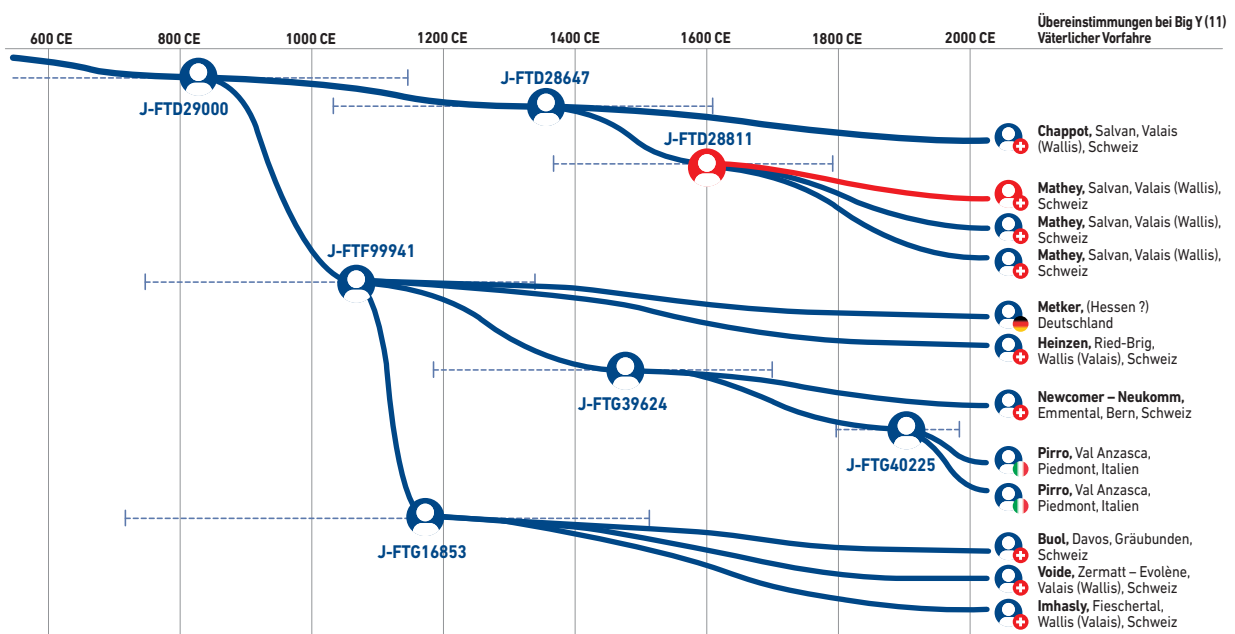
INHALTSVERZEICHNIS

- Einleitung
- Mittelalterliche genealogische Informationen zu den Chappot und Mathey
- Moderne genealogische Informationen zu den Testpersonen
- Y-DNA-Ergebnisse, Vergleich mit der Genealogie
- Ermittlung der MRCA's der Outsiders, geografische Lokalisierung
- Verständnis und Interpretation der Daten, Stärke der Korrelation zwischen Familiennamen und Y-Chromosom
- Alte Migrationswege, bis zur letzten Reise nach Salvan, Valais (Wallis), Schweiz
- Zusammenfassung der wichtigsten Erkenntnisse

Die Chappot (zwei SDEs) und die Mathey (fünf SDEs), zwei Familien aus den Tälern des Trient und der Eau Noire, deren enge Verwandtschaft in den mittelalterlichen Aufzeichnungen nicht klar erkennbar war, erweisen sich nun folgerichtig als Nachkommen eines EKA, dessen Identität bekannt ist und der um 1245 n. Chr. geboren wurde.

Das Auftauchen von sieben Familien übereinstimmender Testpersonen, deren alte Ursprünge ausserhalb der Täler des Trient und der Eau Noire liegen, macht zusammen mit verschiedenen alten Knochen-DNA-Proben die Analyse dieser beiden Familien – ihren letzten Wanderweg vor der Ankunft in Salvan sowie den Zeitpunkt ihrer Ankunft – umso faszinierender.

↓ FTDNA Match Time Tree*: Chappot – Mathey – Metker – Heinzen – Newcomer (Neukommet-er) – Pirro – Voide – Imhasly – Buol.



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LIMITATIONS OF THE STUDY

“DNA does not lie, but it does not always speak plainly either.”

- Medieval genealogy is not an “exact science”!
- Since the availability of archival records varies greatly between the two valleys analysed, the reconstruction of the medieval patrilineal genealogies of the 35 families of Salvan is more accurate than that of the 16 families of Vallorcine.
- For reasons explained in this paper, the comparison with some existing reports or statistics on the subject, suffering from many substantial biases, is not possible at this stage (Cf. chapter XI).
- When no matching “outsider” emerges, the analysis is then narrowed.
- “Outsiders” generally have very limited family trees, most of which go back only as far as around 1750...
- Sometimes “outsiders” do not respond to requests for information, which makes it impossible to determine the exact place of origin of their ancestors.
- The current testing technologies can only probe about a quarter of the Y chromosome accurately. Consequently, there is no genetic basis on which to separate MRCAs appearing on the Match Time Trees. New technologies being explored, several years from being marketable, have the potential to improve this situation - specifically long-read technologies like PacBio and Oxford Nanopore.
- The brief narrative of the haplogroups and sub-clades family lines of chapter X is irregular, depending on the responsiveness of the administrators of the various projects related to the subclades.

FUTURE DIRECTIONS

“The mist that once hid history will, in time, be read one strand of DNA at the time.”

- In the near future, comparisons with papers prepared on some specific areas covered by the ValaisADN-WallisDNA project, namely with the very advanced and exceptionally well-structured Val d'Hérens project benefiting from a robust patrilineal background from medieval times, will be possible.
- The narrative of the haplogroups and sub-clades family lines will be detailed more precisely with the publication of Parts II, III... XXII covering the analysis of 51 families, grouped into 21 clusters.
- The complete lack of Y-DNA markers on ancient bones from the Valais (Wallis) region will be somewhat remedied over time, eventually adding relevant information to each cluster analysis.
- The very few ancient families whose modern descendants have not yet been identified so far may one day be included in this analysis, without significantly altering its content.
- Some of this cluster's testers have done their mtDNA (maternal line ancestors) and autosomal DNA (all ancestral lines, paternal and maternal) analyses. Both are irrelevant to the deeper Y-DNA relationships and therefore the results are not discussed in this project. They may be useful in the future to complement and reinforce the conclusions of this paper.
- Matching “outsiders” can appear any time, helping to trace the specific cluster's last path until their appearance at medieval times.

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- last but not least, my family who has supported my "mental absences" during the long hours spent building up this project.

53. Alphabetical order.

54. Alfred A. Aburto, Citizen Scientist, Volunteer Administrator, Y-DNA haplogroup project J2a-L24, MS in Physics, University of California.

55. Danielle Joulia, PhD in English for Specific Purposes, Senior Lecturer at the University of Toulouse, France.

56. Rolf Langland, PhD, Atmospheric Scientist, Volunteer Administrator for FTDNA Projects: G-L497 Y-DNA and G-Root Y-DNA, and Yfull.com.

57. Tim Lehmann, Citizen Scientist, Y DNA haplogroup project G-L497 at FTDNA.

58. Hunter Provyn, Data Scientist, BS Systems and Information Engineering (University of Virginia), Developer of Y-DNA Analytical Tools, Citizen Scientist Haplogroup Researcher with focus on Y-DNA Haplogroup J2b, Y-STR Analysis and Migrations.

59. Chris Rottensteiner, Alpine Populations Researcher: Phylogenetics & Haplogroups, Admixture & History; ORCID iD 0000-0002-3069-2154.

BIBLIOGRAPHY AND REFERENCES

MEDIEVAL

Nicolas Carrier, *Vocabulaire du pouvoir et fidélités : réflexions sur l'hommage lige roturier en Savoie et en Dauphiné au XIII^e et XIV^e siècles*, Université Jean Moulin – Lyon III, 1999. *La vie montagnarde en Faucigny à la fin du Moyen Âge. Économie et société. Fin XIII^e – Début XVI^e siècle*, 2001. *Une justice pour rétablir la « concorde » : la justice de composition dans la Savoie de la fin du Moyen Âge (fin XIII^e – début XVI^e siècle)*, Congrès de la SHMESP, Angers, 2000, 2001. *Nouveaux servages et société en Europe (XIII^e – XX^e siècle). Actes du colloque de Besançon. Les origines d'un « nouveau servage » en Savoie, d'après les enquêtes princières du XIII^e siècle, 2007-2010. Les usages de la servitude – Seigneurs et paysans dans le royaume de Bourgogne (VI^e – XV^e siècle), 2012. *Homme pour homme, sang pour sang. Le servage comme instrument de résolution des conflits (Barberine, 1320)*.*

Nicolas Carrier et Fabrice Mouthon, *Paysans des Alpes, Les communautés montagnardes au Moyen Âge*, 2010.

A bibliography can be found under **Raymond Lonfat**: cf. vol I. *L'erba, Histoire de la seigneurie abbatiale de la vallée du Trient, des origines jusqu'en 1349*, Salvan, Finhaut, Vernayaz. 2010.

GENETIC

A very substantial bibliography can be found in a wide range of genetic publications, notably with FamilyTreeDNA, notably with ISOGG (International Society of Genetic Genealogy).

Iain McDonald, *Phylogeography of R-U106*, 2026.

Igor L. Rozhanskii, *Haplogroup R1a, Its Subclades and Branches in Europe during the Last 9000 years*.

Dave Vance, *Unveiling Medieval Patrilineal Landscapes: a Genetic Genealogy Study of Surnames in Isolated Swiss Valleys*.

GLOSSARY (acronyms and abbreviations)

Comprehensive glossaries can easily be found in a wide range of publications, notably in Iain McDonald's work: *Phylogeography of R-U106*, 2025, source of the following enumeration.

Listed below are only the words, acronyms and abbreviations used in the preceding text.

- **c.i.:** confidence interval. For example, a 95% confidence interval means there is formally a 95% probability that the true value lies within the stated range.
- **EKA:** earliest known ancestor. For Y-DNA, this represents the oldest person known on a person's male line. Also called a most-distant known ancestor (MDKA).
- **at-DNA:** autosomal DNA is inherited equally (50%) from both parents, it is widely used in genealogy to identify cousins, confirm recent ancestry up to 5 generations, and provide ethnicity estimates.
- **mt-DNA:** DNA stored in the mitochondria, passed down from mother to child.
- **Founder effect:** The very successful foundation of a new haplogroup by a man, which leads to an outsize sub-clade within a haplogroup. If this success was associated with a migration, it may move the geographical locus of the entire parental haplogroup away from its location of origin.
- **MRCA:** most recent common ancestor. For Y-DNA, this represents the last person in a male-line family tree that is related to two different Y-DNA testers, with each tester then descending from different brothers. For example, my cousin's paternal grandfather is my paternal grandfather, so that grandfather is our MRCA.
- **MPE:** misattributed-parentage event. Any event where the genetic parent of the child is not that listed in a genealogy. This includes NPEs, but also issues arising from poor genealogy (either through lack of rigor or lack of records).
- **NPE:** Strictly, a non-paternity event or, more loosely, "not the parent expected". Strict definitions are that the genetic father of a child is not the father named on a birth certificate (or similar document). Loose definitions are any case where the EKA is not what is stated by the genetic tester, including MPEs and SDEs, which are more testable in phylogenetic studies.
- **SDE:** surname discontinuity event. Any event that changes the surname of the paternal line. This includes NPEs, some MPEs, adoptions, intentional surname changes, etc.
- **TMRCA:** Time to most-recent common ancestor. Literally, the number of years since the common ancestor of two testers lived. For consistency, it is best calculated from the birth date of the modern testers (usually a date between 1950 and 1960 AD is assumed) and results in an estimate of the number of years since their MRCA was born. The term TMRCA is also used (slightly erroneously) to refer to the corresponding calendar date.
- **Y-DNA:** DNA stored on the Y chromosome, passed down from father to son.
- **Y-SNP:** Single nucleotide polymorphisms on the Y chromosome. These represent the change of a single base pair. The fewer mismatching Y-SNPs two testers have in a sequence of DNA, the closer they are related.
- **Y-STR:** Short tandem repeats on the Y chromosome. These represent short, repeating structures within the genome. Changes in the number of repeats occur over time. The differences in the number of repeats in a set of Y-STRs define a genetic distance (GD), which is linked to how far in the past two men are related.

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