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# A PHONOLOGY OF THE DIALECT OF BERGSTETTEN

by

Rudolf Dozauer

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# A PHONOLOGY OF THE DIALECT OF BERGSTETTEN

By Rudolf Dozauer

Among the great number of existing German dialect studies there are few which use the structural principles developed by the Prague and American schools of linguistics. None of the modern analyses in existence has dealt with North Bavarian (Oberpfälzisch), of which the dialect of Bergstetten is an example. The present work is based primarily on material collected by the writer in 1960.

1.0 After a brief description of the dialect area, its people and customs, a sketch of the known history of the region is presented. An explanation of North Bavarian dialect features in terms of early settlement and political factors is suggested. Substratum theories, viz. Slavic and Gothic influence, are rejected for lack of convincing evidence.

2.0 Early dialect work leading to the compilation of the linguistic atlas of Germany (Deutscher Sprachatlas) is reviewed. An examination of Wrede's classification of German dialects is followed by an account of dialect divisions in Bavaria proposed more recently. The location of Bergstetten is shown by means of a series of isogloss maps based on the linguistic atlas. In an appraisal of the atlas material, its limitations for the modern user are discussed.

3.0 The consonant system is described on the phonetic and the phonemic levels. All glosses are given in Standard German and English, except where an etymological equivalent is unknown in modern German. It is found that all obstruent phonemes are voiceless, and that each short obstruent phoneme has a long counterpart. Resonant phonemes have voicing and do not show distinctive length.

4.0 The vowels and diphthongs are described on the phonetic and the phonemic levels. A brief account of stress, pitch, and juncture follows. It is concluded that length is not a distinctive feature of the vowel system since it is predictable in terms of following consonants. The dialect possesses no front rounded vowel phonemes. Nasalized vowels and diphthongs occur mainly in complementary distribution with their oral counterparts, but their phonemic status has been shown.

To S. and B.

# PREFACE

The literature on German dialectology is immense. The first linguistic atlas based on the material collected by G. Wenker was begun in Germany. A word atlas has been in the process of publication since 1951. Many dialect dictionaries and monographs exist. At least two journals are devoted exclusively to dialectology.

Yet it is a regrettable fact that German scholars have been very slow and reluctant to adopt the structural techniques developed by the Prague and American schools of linguistics. This accounts for the small number of phonemic analyses that have been made of German dialects. The first such works emanated from the Viennese school of linguistics. Later American-trained linguists (W. G. Moulton, H. Kufner, H. Kurath) have shown some interest in German, mainly South German dialects.

To date no structural description of a North Bavarian dialect has come to my attention. Even traditional treatments are few in number and virtually inaccessible. It must therefore be assumed that future investigations will either confirm or correct what is offered here in tentative form.

German dialect scholars with little experience in structural linguistics have been known to argue that

phonemic analyses tend to obscure the underlying phonetic facts which are crucial to any dialect study. I have therefore attempted to give a clear account of both levels of analysis and their interrelations.

Dialectology, it seems to me, is most relevant when it is seen in a historical and cultural framework. Circumstances have not permitted me to add a diachronic sketch of the phonology to the synchronic analysis at the present time.

The dialect material was collected by me in 1960. It largely reflects the speech of one family, including myself.

In the writing of this dissertation I received generous advice from Professors William H. Bennett, James W. Downer, Robert L. Kyes, and Ernst Pulgram. Mrs. Jean L. Barnard has given me invaluable help in addition to typing all drafts.

To all of them I would like to express my sincere gratitude.

## LIST OF ABBREVIATIONS

| | |
|---|---|
| adj. | adjective |
| adv. | adverb |
| Beiträge | Beiträge zur Geschichte der deutschen Sprache und Literatur |
| Cz. | Czech |
| DSA | Deutscher Sprachatlas |
| dimin. | diminutive |
| Gmc. | Germanic |
| Go. | Gothic |
| imperat. | imperative |
| IE | Indo-European |
| jocul. | jocular |
| L | Latin |
| MHG | Middle High German |
| MI | Middle Irish |
| NHG | New High German |
| OE | Old English |
| OF | Old Frisian |
| OHG | Old High German |
| OIr. | Old Irish |
| OLF | Old Low Franconian |
| ON | Old Norse |
| OS | Old Saxon |
| p.part. | past participle |
| pejor. | pejorative |
| PGmc. | Proto-Germanic |
| ZMF | Zeitschrift für Mundartforschung |

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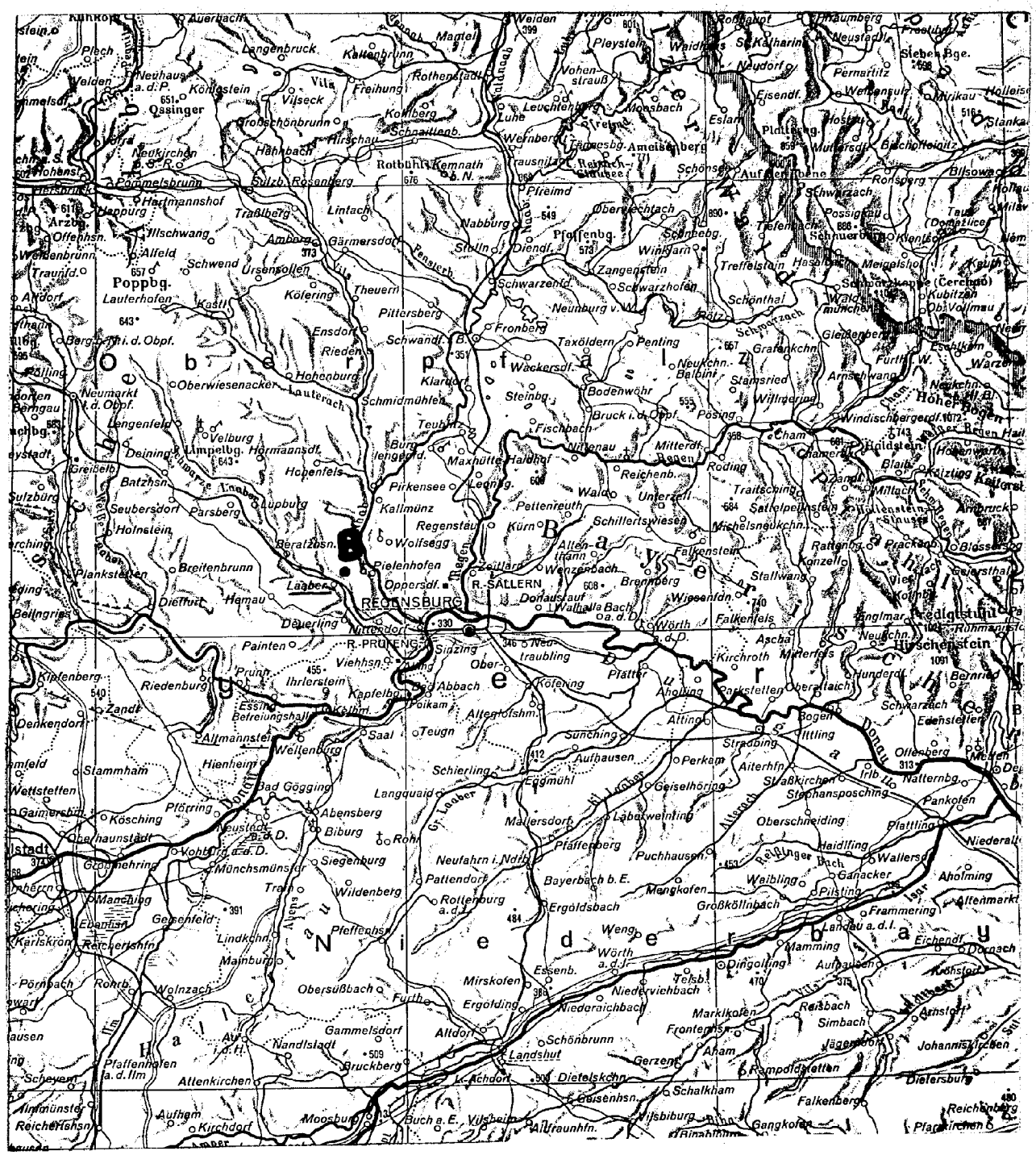

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# 1.0 THE DIALECT AREA

## 1.1 The Land and the People

The village of Bergstetten is situated twenty kilometers northwest of the city of Regensburg, in the northern part of the State of Bavaria. It is a farming community of less than 500 inhabitants. As the name Bergstetten suggests, the village is strung along a gentle mountain slope above the valley of the Schwarze Laber. Neighboring settlements which are similarly located share the -berg element in their names: Frauenberg, Grossetzenberg, Kleinetzenberg. The frequent outcroppings of Jura rock remind the visitor that he is still within the eastern limits of the Fränkische Alb. A short distance to the east begins the basin of the Naab river with its rolling hills.

Nature has not been bountiful in these parts. Stony soils provide a scant living to the farmer. Every year brings the back-breaking work of Stoaglaum, the picking of rocks from the fields where they have "grown" since the previous year, as the popular belief goes. It is little wonder then that the whole Oberpfalz (Upper Palatinate) district bears such derogatory nicknames as Steinpfalz and Kartoffelpfalz. The farmers of Bergstetten grow mainly rye, barley (for the breweries), oats, potatoes, and some




Map 1.--The geographic location of Bergstetten (B).

wheat. In addition, most farmers keep a number of dairy cattle, pigs, hens, and geese. The out-door brick ovens which are still seen on most farms no longer serve their original purpose. Farm women have found it more convenient to exchange their own flour for bread at the bakery. The spinning wheel, once plied by the women during the long winter months, now stands in the attic, covered with dust and cobwebs.

Mechanization was slow in coming to Bergstetten. Traditionally, the small farmer would train his cows to pull the plough and haul the waggon. The medium farmer could afford to feed a team of oxen through the winter in order to have a pair of sturdy draft animals during the rest of the year. The wealthiest farmer enjoyed the status of being a "horse farmer". The latter now owns the only combine in the village. Some of the "oxen farmers" are the happy owners of small tractors. As recently as six years ago, most fields were harvested by hand. Now even smaller farmers can have their grain mowed mechanically by their tractor-owning neighbors.

The war left the village virtually untouched. Only a few refugee families were assigned to it. Their impact on the speech and customs of the native population was negligible. This fact together with the relative remoteness of the village may account for the survival of old customs and traditions, although some are rarely seen today.

Some ten years ago, the Kamawong (Kammerwagen) could still be seen occasionally. It consisted of a gaily decorated waggon carrying the bride's dowry to her prospective home. Today the word still has the meaning 'dowry', but its original content is much weakened.

The singing of Schnodahipfl is a dying custom. Young people challenge each other to a kind of verbal contest, singing teasing and often provocative verses to a standard tune. The skilful singer of Schnodahipfl has a vast supply of standard texts which can be varied to fit a particular opponent. He has an apt reply to the banter addressed to him. The contestant who runs out of verses is considered the loser.

Kiatta (Kirchweih), celebrated on the day of the patron saint of the church, is the climax of the villagers' social life. The night before the festival, the Kiattabam (Kirchweihbaum) is erected, which is accomplished with the strength of the young and the advice of the old. The festival day itself features a parade of the band and singing young couples through the village. The dancing around the Kiattabam in the late afternoon is the signal for general revelry to begin, which may last till the early morning hours.

Fosenocht (Fastnacht) is the time for the traditional Aussinga (Aussingen) or Ausspüln (Ausspielen). The village wags have collected tales of humorous incidents which occurred during the year, and set them to music. On Fosenocht these topical ditties are then sung to an apprecia-

tive audience, each gloating over his neighbor's embarrassment until he himself, quite unexpectedly, finds himself the laughingstock.

Favorite leisure-time activities (primarily for men) include beer drinking and card playing at either of the two local inns. In the summer and fall there is out-door bowling for small stakes on an age-old, bumpy lane. In the winter ice curling on the village pond is a popular pastime.

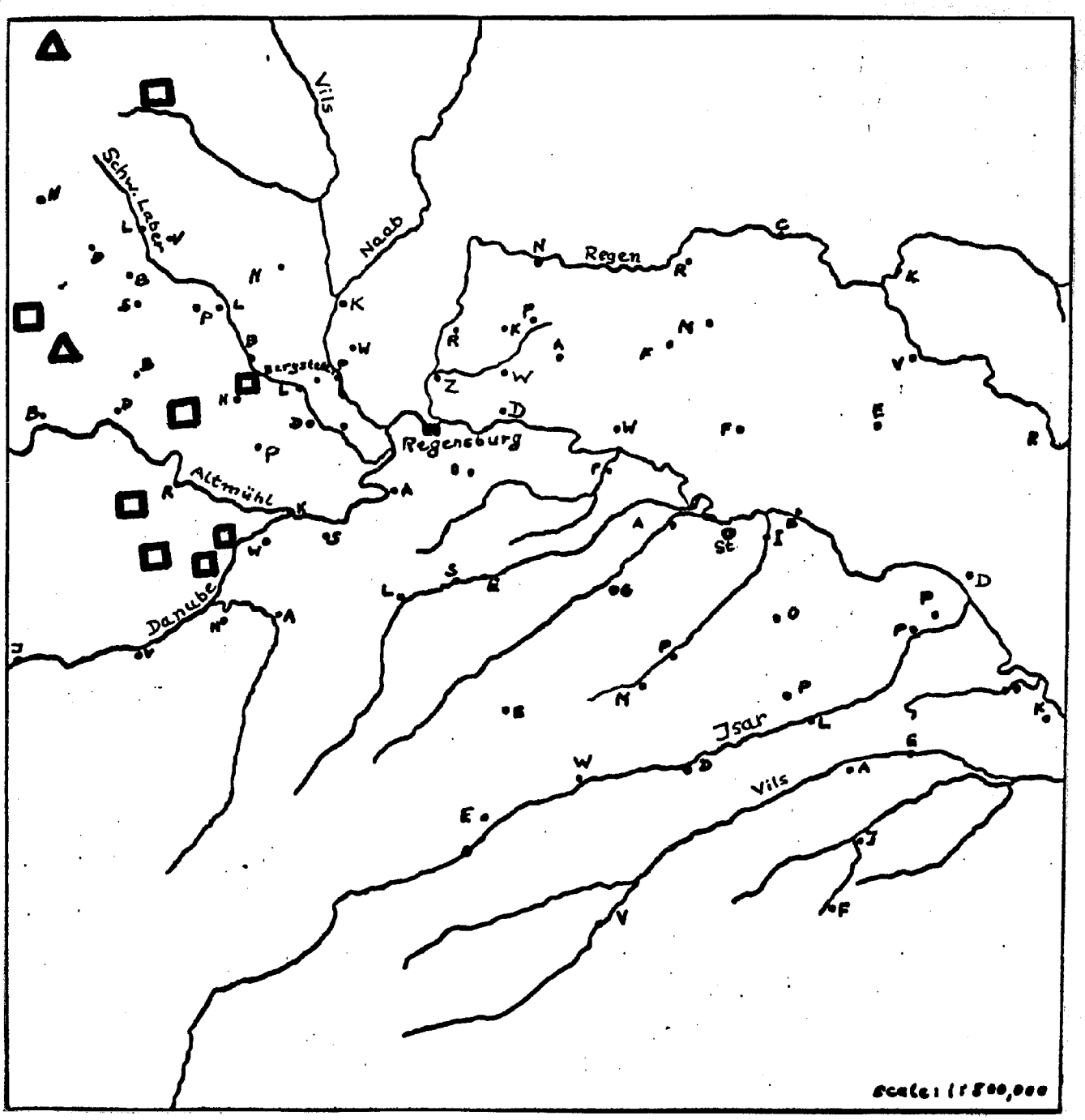
A narrow dirt road connects Bergstetten with its closest cultural center Laaber[1] on the Schwarze Laber. Virtually every villager who is able to walk covers the four-mile distance at least once a week to attend Sunday Mass. School children walk to the school in Laaber. Farmers often come here to buy supplies and to market their products. The larger regional center for both Bergstetten and Laaber is Regensburg, which can be reached by train from Laaber. To the villager, going to town means going to Regensburg. Much of the villagers' major shopping is done here. This traditional closeness of the city of Regensburg may have led to the introduction of some dialect features native to Central Bavarian (see 2.2.4).

## 1.2 The Historical Background

1.2.1 The earliest historically and linguistically attested settlements of South Germany, including Bavaria, were those of the Celts.[2] The close cultural ties that must have existed between the Germanic and Celtic populations of Europe preceded the advent of Roman colonial power.

A number of Germanic words are explainable as loan words from Celtic.[3] The Celtic stem rīg (commonly occurring in proper names such as Vercingetorīx, Dumnorīx, in place names like Rīgomagus, Icorīgium) appears to have been borrowed even before the shift of IE b d g > Gmc. p t k, the last phase of the Germanic consonant shift.[4] It occurs as OHG rīhhi, OS OLF ON rīki, OF rīke, Go. reiki, reiks. Other well-known examples are: from Celtic ambactus[5] 'servant' OHG OS ambaht, OE ambiht, ON embætti, Go. andbahti. OIr. oeth 'oath' is connected with Gmc. *aiþa-, Go. aiþs, ON eiðr, OE āþ , OF OS ēth, OHG eid. OIr. giall 'hostage' (from *gheisalo) represents the Celtic source for OHG OS gīsal, OF jēsel, OE ON gīsl.[6] MIr. luaide 'lead' (from *loudiā IE *ploudiā) was borrowed into Germanic as MHG lōt (OHG ON Go. forms not attested), OF lād, OE lēad. OIr. dūn (from *dūnos) 'castle, fort' appears as OHG zūn, OS OLF OF OE ON tūn. If this word is correctly identified as a Celtic borrowing, it must have entered Germanic before the media to tenuis phase of the Germanic consonant shift.

1.2.2 The abundance of place names of Celtic origin found in the Rhineland and in South Germany offers conclusive evidence for a major concentration of Celtic settlements. The left bank of the Rhine between the Moselle and the mouth of the Erft is studded with Celtic place-names in -acum, e.g. Andernach (Andernacum), Conz (Contionacum), Jülich (Juliacum), Zieverich (Tiberiacum).[7] In South Germany Celtic names in -dunum ('fortified place') and -durum ('Burg') are found:[8] Kempten (Cambodunum, Celtic cambos 'crooked'), Zarten (in the Black Forest, from Tarodunum), Boiodurum (extinct, near Passau, where Beiterbach and Beiderwies have preserved the name), Sorviodurum (extinct, near Straubing). Names based on Celtic magus 'field': Brumath (Brocomagus, near Strassburg), Marmagen (Marcomagus), Dormagen (Durnomagus), Remagen (Rigomagus). Names containing briga 'mountain': Boppard (Baudobriga, 803 Botbarta), Bregenz (Brigantion). Names with lānion 'plain' (*planion): Medelingen (Mediolanum), Meilen (Zürich); cf. Mediolanum 'Milan'. Place names in -bona (with unclear meaning): the modern Vienna (Vindobona), Regensburg (Radisbona). Some Celtic names are also found among the cities that Ptolemaeus[9] places north of the Danube, e.g., Μεδιολάνιον, Ἐβουρόδουνον, Ἔβουρον, Καρρόδουνον, Μελιόδουνον, Βουδοργίς, Βουδόριγον. Celtic Viereckschanzen ('forts') and oppida found in the immediate dialect area are shown on Map 2.




Map 2.--Two types of Celtic forts
found north of the Danube
(E. Schwarz, Sprache und Siedlung, map 5)

1.2.3. When the Romans under Augustus' stepsons Drusus and Tiberius expanded Roman rule as far north as the Danube (15 B.C.), the Bavarians had not yet stepped into the light of history. The population the Romans found in Raetia (Southern Bavaria, Tyrol, Graubünden) were the non-Germanic, probably Celtic, Vindelicii and Raetii. The inhabitants of Noricum (east of the Inn river as far as Pannonia), which was subjugated by the Romans in 16 B.C., were likewise non-Germanic, possibly Celto-Illyrian. The centers of the new province of Raetia were Augusta Vindelicorum (Augsburg) and Castra Regina (Regensburg, a fort built on the site of the Celtic Radisbona, at the apex of the Danube river, as a fortified outpost against the hostile Marcomanni). In order to protect the land situated between the apex of the Danube and the Rhine river, Hadrian (117-138 A.D.) had his famous limes built, remnants of which are still visible. From Hienheim above Kelheim the limes extended to the Altmühl river near Pfünz, from there to the Schwäbische Rezat. Near Lorch it angled sharply to the Main river, from where it reached the Rhine near Andernach. The total length of the wall was 300 miles, with forts at nine-mile intervals. Beyond this line, extending from the Danube near Regensburg along the limes to the Rhine, the Romans were to establish no permanent colonies.

1.2.4 Bavarian settlements are first attested in 551 as being east of the Alemannic territory. Jordanes in his

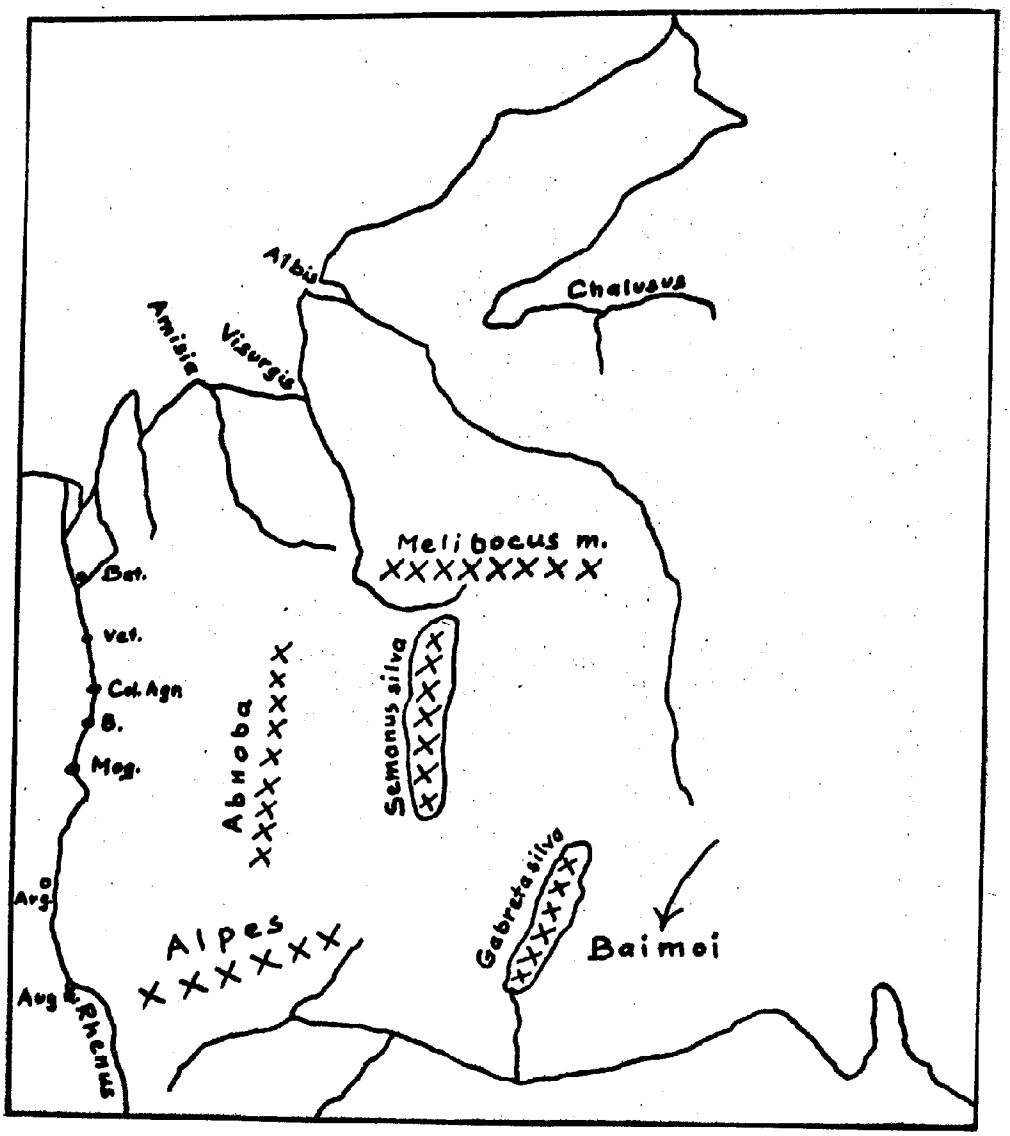
history of the Goths relates: "Regio illa Suavorum ab oriente Baibaros habet."[10] Since the writings of Jordanes are believed to be based on Cassiodorus, the actual date of the statement may go back to 526-33. This is the first mention of the Bavarians in their approximate present-day habitations. Gregory of Tours mentions the first known Bavarian duke by name: Garibald (about A.D. 550).[11] The Latin poet Venantius Fortunatus (ob. ca. A.D. 600), on a journey to Gaul, describes the "Baivarios" as being settled in "their new home to the east of the Lech river."[12] Since the bulk of the Roman troops had been withdrawn by 488, it may be assumed that the Bavarians filled the military vacuum left by the retreating Roman legions. The Bavarian Landnahme would then have occurred between 488, the year Rome's troops were recalled, and 551, the year of Jordanes' report.

Speculations about the origin and early home of the Bavarians revolved around the assumed connection between the Celtic tribe of the Bojer (Caesar's Boii) and the later Baiern. It was long believed that Bavarians and Boii were in fact one and the same people. Since there was no doubt about the Boii having been Celts,[13] their Bavarian descendants must therefore also be of Celtic descent according to this theory (first advanced by Jonas von Bobbio, author of Vita sancti Eustasii,[14] 7th century). This view was much in vogue in times of Franco-Bavarian amity, since it seemed to establish an ethnic link between the two powers.

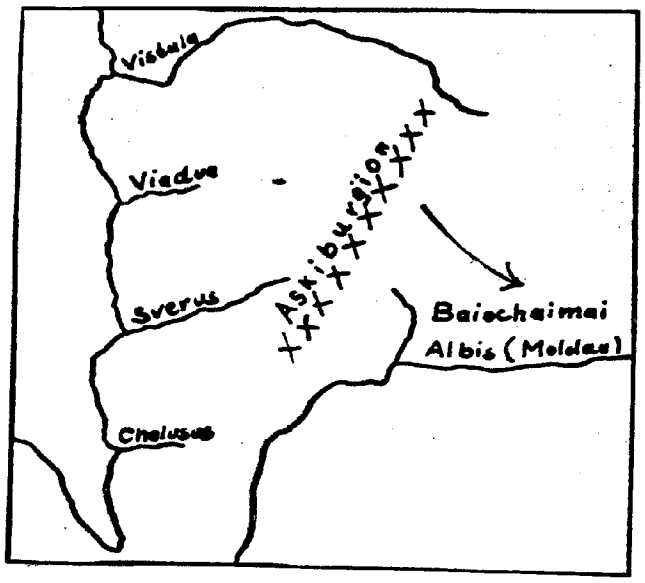
This assumption has long since been discarded. It is now generally accepted that the Bavarians are of genuinely Germanic descent. Their ancestors are to be seen in the Marcomanni of Bohemia (first in K. Zeuss' Die Deutschen und die Nachbarstämme, München, 1837, pp. 364-80), who in turn were a member tribe of the league of the Suebians.[15] The Marcomanni defeated the Celtic tribe of the Boii at about the birth of Christ. The home of the Boii was then Boioheimum 'at the homes of the Boii', the modern Bohemia. The name of the subjugated Boii may then have been transferred to the conquerors who settled in the homeland of the former, before invading the Roman provinces of Raetia and Noricum (see Maps 3 and 4).[16]

Despite the change in the historical interpretation of the correspondence Boii-Baier, there continues to be a likely etymological connection. M. Schönfeld[17] quotes the following forms which he derives from *Bai-wariōz 'the inhabitants of Baja': Baioarii (6th century in Generatio Regum et Gentium, circa A.D. 520, in Gallia descripta), Baibari (Jordanes, Romana et Getica); also Baioeri, Baoweri, Bawarii, Baiobari, Baioarii. Their homeland M. Schönfeld reconstructs as *Baja-haimōz. Baias is the name given to part of the Upper Elbe area bordering on Pannonia. It is the Greek form of Baia. Velleius Paterculus refers to it as Boiohoemum; Tacitus calls it Boihemum.[18]

1.2.5 At the time of the immigration of the Bavarians from Bohemia into their later homeland they found a mixed




Map 3.--According to L. Schmidt, "Zur Germania des Ptolemäus," p.84




Map 4.--According to L. Schmidt, "Zur Germania des Ptolemäus," p. 85

Roman-Celtic population which had formed under Roman rule. Odoaker (Herulian ruler of Rome 476-93) had given the order to vacate the Danube provinces of the Empire when it appeared that they were becoming increasingly untenable. But many Romans who had settled in the provinces decided to stay and were gradually absorbed by the Bavarian population. In the 8th century most of the clergy of the bishopric of Freising bore Latin names.[19] Roman enclaves survived longer near the Alpine region and in the valleys of the mountains. Place names containing the element walch-[20] mark such settlements to the present day: Walchen, Walchensee, Walchsee, Walchsing, Wallberg (from Walchberg). Some topographic names also have clearly Latin etymologies: Gols (L collis 'hill'), Plain (L plāna 'plain'?), Muntigl (L monticulus 'small mountain'), Gnigl (L cuniculus 'shaft, mine'), Irschenberg (L ursus 'bear').

Some Bavarian dialect words have also been derived from Latin:[21] lagl 'fish container' (L lagēna 'flask), gred 'entryway (L gradus 'step'), gugl 'hood' (L cuculla 'hood'), antsn 'double shaft (waggon)' (L ansa 'handle').

1.2.6 Frankish influence, forever spreading since the rule of the empire-building Clovis (481-511) and his sons, may have extended into Bavaria about the middle of the 6th century. The Frankish king Theodebert (534-48) in a letter to the East-Roman emperor Justinian asserts that his rule extends from the Danube and the border of Pannonia to the shores of the ocean.[22] However, there is no historical

evidence of military conquest by the Franks. No tribute was paid the Frankish king, and the people retained the right to elect their own ruler.

The Langobards who had settled in Northern Italy in 568, filling the vacuum left by the annihilation of the Ostrogoths at the hands of East Rome, were close neighbors of the Bavarians to the south. The closeness of the existing ties is demonstrated by the marriage of Duke Garibald's daughter to Authari, king of the Langobards (584-90).

The decline of the fortunes of the Merowingian kings brought a greater measure of independence to the duchy of Bavaria. About the year 700 Duke Theodo was able to conduct his affairs of state with little if any interference from the Frankish court. He led a delegation to Rome to negotiate with Pope Gregory II on matters of church organization. When the Langobardic crown was disputed, he intervened. Starting with Duke Theodo, the succession of Bavarian rulers is completely known to history, and the history of Bavaria begins to emerge more clearly.[23]

1.2.7 Christianity came to Bavaria from the Frankish realm through Scottish and Irish missionaries. Under Duke Odilo (737-48), St. Boniface (Winfried) founded the bishoprics of Salzburg, Passau, Regensburg, Freising, and Eichstätt. With the advent of Frankish churchmen came political influence and eventual domination by the Franks. Charlemagne in 788 deposed the last of the dukes of the house of Agilolfinger, Tassilo III.

1.2.8 In 805 Charlemagne established the Nordgau, a Bavarian territory north of the Danube, west of the Regen river and the Bohemian Forest, as a Mark against incursions by Slavic tribes.[24] At that time most of the area north of the Danube was only sparsely settled. Along the Naab river the northern-most outpost of civilization was Premberg (the Priemberg of Map 5) near Burglengenfeld.[25]

Aside from the historical facts, early settlement patterns can be derived from a study of place names. Names in -ing- (from OHG -ingum), which are assumed to be the oldest stratum of names, are found primarily in the open plains. A name like Sendling means 'with the people of Sentilo'. Haching points to a settlement by a Hacho; Oftlfing contains the name Oftolf. Concentrations of -ing- names mark early settlement areas: the area around Ingolstadt, the fertile Danube plains extending from Regensburg to Pleinting, the Inn district of Mühldorf, the Munich plain. Names in -ing- decrease in frequency toward the foothills of the Alps. Here Raeto-Romanic names are found. But it is in the high Alps that most non-Germanic names are in evidence, including river and mountain names (see 1.2.5). This distribution of place names points to a gradual southward movement of the Bavarian settlers, with many Raeto-Romanic pockets surviving for a long time.

The Bavarian North, which includes the dialect area to be studied here, may have appeared as inhospitable to the invaders as the modern nickname Steinpfalz (stony Pfalz)




Map 5.-- From H. Meinel,
Vogtländisch und Nordbayrisch,
Skizze 1

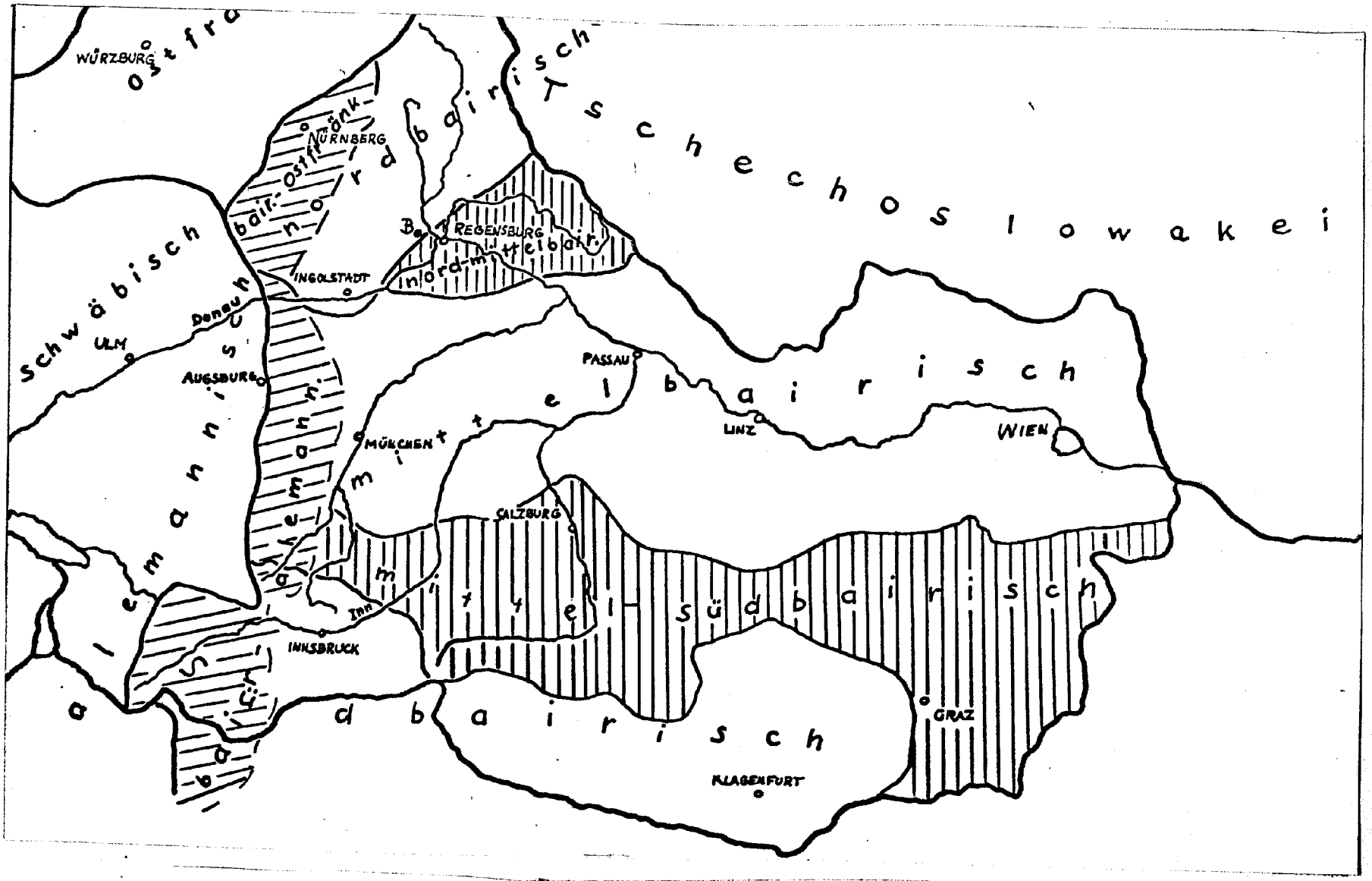
implies. The number of place names in -ing- is extremely small north of the Danube. In the northern counties of Neustadt, Kemnath, Eschenbach, and Wunsiedel, as well as in the Egerland (now a part of Czechoslovakia), place names in -ing- are completely absent. Of those that do occur, many seem to be of a later date, formed after the model of the original -ing- names.[26]

From the foregoing evidence it may be concluded that Bavaria north of the Danube was settled at a considerably later period than the Bavarian heartland extending from south of the Danube to the Alps. Intensive development of the Nordgau most likely did not begin until its establishment by Charlemagne (805) as a defensive zone against the Slavs.

1.2.9 The first ruler of the newly established Nordgau was Audulf (805-18). Heinrich von Schweinfurt (the son of Berthold of the house of Babenberg), who is attested as Markgraf from 980, was instrumental in obtaining the imperial crown for Henry II. When he was not granted the duchy of Bavaria as his expected reward for services rendered the emperor, he rose up in rebellion, together with the Polish duke Boleslaw Chrobry. After meeting with repeated defeats, he was forced to accept certain territorial losses including a wide strip of land in the south of the Nordgau (1004). The subdistricts (Untergaue) Rudmarsberg, Solenzgau, and Kelsgau are later (starting in 1007) recorded as the domain of a certain count Berengar. The area between the Kelsgau

and Donaugau districts (see Map 5), most likely including the village of Bergstetten, passed under the rule of the Burggraf von Regensburg.[27] From that time on, the southern part of the Nordgau was increasingly allowed to develop independently. The Nordgau was never again to extend its influence down to the Danube. It later directed its chief interest toward the newly colonized regions of the North and East (Fichtelgebirge, Egerland). The southern part of the old Nordgau--the modern designation is Oberpfalz as opposed to the Rheinpfalz, the former Bavarian "colony" on the Rhine; the North Bavarian dialect is often called oberpfälzisch--gravitated more and more toward its natural political, economic, and cultural center, the city of Regensburg, the residence of the dukes of Bavaria until the 13th century.

1.2.10 A glance at the Bavarian dialect map (Map 6) will show that the historic Nordgau corresponds more or less to the Bavarian subdialect North Bavarian. As was shown above (1.2.8), this land was settled much later than the area to the south of the Danube. This fact alone cannot account for the independent developments which took place there, forming a dialect closely related to but distinct from Central Bavarian. In the absence of any other evidence, it would have to be assumed that the Nordgau was settled by Bavarians from south of the Danube, bringing with them the same language and customs. H. Meinel[28] attempts to show that the Nordgau was not primarily settled




Map 6.--Major divisions of Austro-Bavarian
(Adapted from E. Kranzmayer, Historische Lautgeographie, map 1)

by Bavarians. The characteristic [oụ̯] in North Bavarian as compared with Central Bavarian [uạ̯] from PGmc. */o͞/ he regards as having been brought in by settlers and laborers called in from West Central Germany (Hesse), but the total lack of historical documentation for such an assumption makes it a mere speculation.[29]

An attempt to correlate early settlement patterns with the crystallization of dialect areas must rest on known historical facts. The earliest northward extension of Bavaria beyond the Danube took place along the lower Altmühl, Naab, and Regen rivers. These outposts were to become the centers around which Charlemagne's northern Mark was to be built. This early orientation (805) of the Nordgau away from the Danube and the heartland of Bavaria may well have been the beginning of dialect divergence.[30]

Another look at the Bavarian dialect map (Map 6) reveals a transition dialect between North and Central Bavarian with Regensburg as its center. Much of this area corresponds with the lands of the old Nordgau, of which the unfortunate Heinrich von Schweinfurt was divested after his act of rebellion in 1004 (see 1.2.9). Thus, after being part of the old Nordgau for about 200 years, possibly participating in early North Bavarian dialect developments, these lands severed their former political ties. They faced away from the northward and eastward-expanding new Nordgau, which was to exclude them from those developments which later led to such distinctively North Bavarian features as [feịạ] 'four' for Central

Bavarian [fiạ] (see Map 12). These southern parts of the old Nordgau and the immediately adjacent areas to the south of the Danube now constitute a transition zone intermediate between North and Central Bavarian, called "nordmittelbairisch" by E. Kranzmayer (see Map 6). Later encroachments by Central Bavarian, a process which can again be observed[31] in modern times, have led to a region whose isoglosses reflect the ebb and flow of shifting dialect features (see Maps 9-18).

1.2.11 Whether the North Bavarian dialect features are due to historical reasons other than migration and isolation, is difficult to say. Substratum theories are generally too vague and elusive to be of help. Two types of substratum have been suggested for North Bavarian, viz. Slavic and Gothic. If the former is a remote possibility, the latter is clearly not to be taken seriously. The Gothic substratum theory is discussed here only as a historical curiosity.

In his work entitled Dr. Weinholds Bairische Grammatik und die oberpfälzische Mundart,[32] published in 1869, Schönwerth expressed his belief that North Bavarian (oberpfälzisch) was to be regarded as a continuation of the Gothic language, which all other scholars agreed to be extinct. O. Brenner in an article written in 1890 states that this theory had found widespread acceptance at the time.[33] In his decisive refutation of Schönwerth's hypothesis, he pointed to the wrong interpretation of the

Gothic spellings ei ai au as diphthongs to be equated with North Bavarian [ei̯], [ai̯], [ao̯]. His words, though written in 1890, have a very modern ring: "Es scheint jetzt kein Mensch mehr zu bezweifeln, dass goth. ai und au keine Doppellaute, sondern Zeichen für offene e und o waren."[34] Aside from certain superficial phonological correspondences, some of them spurious, Schönwerth offered no morphological or lexical evidence to substantiate his view. Such evidence could have been found, although it is not exclusively North Bavarian and must certainly be given a different explanation: dult (Go. dulþs) survives in the meaning of carnival ('Volksfest'). A number of Bavarian Kennwörter[35] are explained as loanwords from Greek transmitted through the Goths:[36] Ertag 'Tuesday' (from Ἄρεως ἡμέρα via Go. *areiusdags), Pfinztag 'Thursday' (from πέμπτη via Go. *painte), and others. An apparent morphological correspondence exists in the dual. It is well known that Bavarian dialects have preserved the dual pronoun 2nd pers. forms es (nom.), enk (oblique cases), enka (possessive adj.), in the function of plural. Would it then be surprising if Bavarian had also preserved the dual in the verbal system? It is tempting to compare Go. nimats (2nd dual) with Bavarian nemts as in nemts enk tsam! 'nehmt euch zusammen!' However, this form does not occur in Old High German and is probably the result of the expected form nemt ('nehmt') plus the affixed subject pronoun es.[37] A parallel to this process exists in Old High German where gibist contains an earlier gibis + du. As can be seen in

the above example, the -s occurs also in the imperative form nemts whereas New High German has preserved a contrast between the indicative form gibst and the imperative gib (aside from the regular absence of the -s ending in the imperative). There can be no doubt that North Bavarian or Bavarian generally bears no closer genetic relationship to the Gothic language than any other Germanic dialect.

1.2.12 Another view claims that North Bavarian features are due to a Slavic substratum.[38] The evidence of known Slavic place names in North Bavaria is impressive. However, their mere existence cannot serve as proof for linguistic interference from Slavic. As is so often the case with alleged substratum influence, no detailed argument can be deduced from the evidence. All too often the supposed substratum language is even less known than the early stage of the surviving language, which means that an unknown x is to be solved as a function of a second unknown y. A list of known Slavic place names includes the following,[39] ordered by counties:

Kreis Wunsiedel: Marktredwitz, Kirchenlamitz, Hebanz, Oschwitz.

Kreis Burglengenfeld: Girnitz (gora 'mountain'), Kallntzen (kaln 'swamp'), Köblitz (kobyla 'mare'), Loisnitz (logu 'grove'), Prissath (pre 'before', zada 'ridge').

Kreis Cham: Grabitz (grabu 'beech'?), Langwitz (lanko 'meadow'), Kaibitz (chvoja 'brushwood'?), Löschwitz (based on a person's name), Trevesen (trebezunu 'place in a clearing'), Wirbenz (vrnba 'pasture').

Kreis Nabburg: Döswitz (tesate 'to fell', Cz. tes 'blow'), Kettnitzmühle (skotu 'cattle'; also place name Skotnice in Moravia), Perschen (berza 'birch tree'), Treffnitz (drevo 'tree', also place name Drevenice in Bohemia).

Kreis Neunburg: Kröblitz (krabij 'basket'), Pilchau (pluchu 'Haselmaus', Cz. plch).

Kreis Neustadt a.d. Waldnaab: Döltsch (dolu 'valley'), Görnitz (gora 'mountain'), Luhe (lagu 'forest, swamp'), Schirmitz (tscherembitza 'brick-kiln'), Schlattein (slatina 'swamp'), Zeissau (tisu 'yew tree', also the place name Tisa in Bohemia), Muglhof (mogyla 'hill').

Kreis Tirschenreuth: Beidl (bydlo 'habitation'), Dobrigau (dobru 'mountain', or dobru 'good'), Klein Klenau (klenu 'maple', also place name Kelnov in Bohemia), Rosall (rasolu 'brine'), Schloppach (slupice 'fish trap'), Tschirnitz (crunu 'black', also place name Tschernitz in Bohemia).

Kreis Vohenstrauss: Lohma (lomu 'quarry', also place name Lohm in Bohemia), Pöllitzmühle (polje 'field').

Kreis Waldmünchen: Rötz (recina, dimin. of reku 'river'; very common as place name), Thurau (turu 'Auerochs').

Place names containing Wind(en), referring to the West Slavic Wends: Windischeschenbach (Fichtelgebirge), based on the German Eschenbach (attested 1280) to which windisch- was prefixed in the 14th century. One form is attested as Eschenbach Slavorum (1433). Hagewinden, Polenwinden (both extinct, Kreis Amberg); Winpesing, Winden

(Kreis Beilngries); Bukenwiniden (extinct), Windpaissing (Kreis Nabburg); Windischbergersdorf (Kreis Cham); Cunterwinden (extinct), Kirchenwinn, Krumpenwinn, Reichartswinn, Walkerswinn (today St. Coloman, probably named after the favorite Wendish saint), Winn (earlier Winden, Kreis Parsberg); Alletswind, Windischbachmühle, Wünschenbach (from Windischenbach, Kreis Roding); Appertswinn, Grafenwinn (Kreis Stadtamhof); Oberhembach (2nd half of 14th century Windyschenhempach, Kreis Neumarkt).

All told, there are 366 place names that are either of Slavic origin or refer to Slavs, including 58 mixed Slavic-German names. However, it is usually assumed that these Slavs were not free landowners but rather that they were called in to help reclaim the inhospitable land north of the Danube.[40] They may have been pressed into service as prisoners of war along the ever-restless German-Slavic frontier. Later further recruitment of Slavic laborers may have led to larger settlements, places containing Wind-. If this is so, their impact on the German speech of their lords and free neighbors may have been negligible.

The fact that Slavic settlements abounded in the Nordgau at an early period cannot be denied. This evidence alone, however, cannot support any Slavic substratum theory. M. Bachmann's conclusions were that Slavic settlements existed only in the eastern part of the Nordgau adjacent to Bohemia. Place names containing the Wind-element are of later date and occur farther to the north and west, where Slavic serfs cleared the dense forests.[41]

1.2.13 After this brief examination of such early historical facts as may have affected the development of the North Bavarian dialect, a few observations on the later history of the Nordgau may serve to round out the picture.[42]

In 976 Henry (II) the Cantankerous (der Zänker), duke of Bavaria, rebelled against Emperor Otto II. He was deposed, and the Nordgau, along with the Bavarian Ostmark (later Austria) and Carinthia, was separated from the duchy of Bavaria. In 1255 the remainder of Bavaria was split up into Upper Bavaria (including the Rhenish Palatinate and the office of Elector) and Lower Bavaria. In 1314 Ludwig IV of Upper Bavaria became king of all Germany and later emperor (1328). That is, the Nordgau was again united with Bavaria. In 1329 Ludwig ceded part of the Nordgau, the Upper Palatinate (Oberpfalz), to the sons of his brother Rudolf. In 1392 Bavaria was again split up, this time into three principalities: Landshut, Straubing, Munich. The three lines were reunited in 1506 under Albrecht IV (the Wise) of the line of Munich. The first university on Bavarian soil was founded in Ingolstadt in 1472. It was later moved to Landshut (1802) and from there to Munich in 1826.

The Reformation found many adherents in Bavaria before the new creed was crushed by the ruler. The Upper Palatinate (Oberpfalz, Nordgau) leaned heavily toward Calvinism.[43] But the Jesuits were called to Ingolstadt in 1549 and under Duke Albrecht V the Magnanimous (der Grossmütige) Protestantism was completely stamped out in all

Bavarian lands. Under the same rule Munich began its development as a city of art and culture.

Maximilian I (1597-1651) was granted the office of Elector in 1623. Five years later he regained the Upper Palatinate for Bavaria. In 1805 Bavaria was raised to a kingdom by Napoleon I in return for loyal support. The seven Regierungsbezirke (political units smaller than the Land and larger than the Kreis) of which the Federal State of Bavaria consists today were established by the king in 1837. This was the last important internal reorganization of the State of Bavaria.

This sketch of the later history of the Nordgau has shown its fluctuating territorial status, ranging from complete independence to annexation by the powerful dukes of Bavaria. As observed above (1.2.10), the changing political status of the Nordgau may have found its linguistic expression in the staggered isoglosses of the North-Central transition area (see Maps 9-18). The speech of this transition area was most vulnerable to Central Bavarian influences. The main part of the old Nordgau has continued its separate linguistic development until this day.

## 2.0 DIALECT DIVISIONS

### 2.1 Early Dialectology and the Linguistic Atlas

2.1.1 During the early period of German grammatical literature the dialects received very little attention. The concerns of grammarians from J. G. Schottel (1612-76) down to J. Ch. Adelung were primarily with the establishment of a fixed norm for German as a supraregional language (Schottel's "Haubtsprache"). It was considered the grammarian's task to discourage and suppress provincialisms rather than to describe and analyze them. The view that dialects were nothing but a corrupted form of the "true" state of the language had wide currency. Speakers of dialects were variously ridiculed by their learned contemporaries as "simpliciores et incultiores", "inculti et agrestes" (Laurentius Albertus, 1573), as "crassiores", "vulgus (id est homines imperiti et patriae suae fines numquam egressi)" (Rivius, 1576).[44] Schottel seemed to feel that a common language existed on a higher social plain: "Lingua ipsa Germanica, sicut viri docti, sapientes et periti eam tandem receperunt et usurpant."[45] J. Ch. Gottsched (1700-1766) expresses his dismay at the mangled language he finds in Upper Saxony when he says that the inconstant rabble ("Pöbel") tends to use incorrect and

"falsified" words such as Jott, Jabe, jut for Gott, Gabe, gut.[46]

2.1.2 The end of the 17th century marks the beginning of a period that produced a number of systematic collections of dialect material. The collector's motivation was probably more a desire to preserve dialect forms as curiosities than an effort to stimulate serious investigations into the nature of dialects. One of the first compilers of "vocabularia provincialia, plebeica et rara" (note the regional and the sociological aspect of the phrase) was J. L. Prasch, mayor of Regensburg, who in 1689 wrote his Glossarium Bavaricum.[47] This period culminates in the basic work on Swiss German, the Schweizerische Idiotikon, by F. J. Stalder (1806-12).[48] J. Grimm's Deutsche Grammatik (1819), though based on written medieval documents, laid the groundwork for future history-oriented work on living dialects. But early 19th-century Romanticism, while awakening an interest in the German and Germanic past, also produced the first scholar who viewed contemporary dialects as more than quaint oddities and curiosities to be collected and preserved for posterity. J. A. Schmeller (1785-1852), a Bavarian, came to see the dialects in a new light. In gathering data for his book on the dialects of his native Bavaria[49] and making comparisons with Old High German, he reached the conclusion that the dialects did not, as hitherto believed, represent a decadent form of the written language but rather that they

were the result of regular linguistic developments. Grimm's work could only confirm the findings that Schmeller had reached independently.

2.1.3 The budding science of comparative Indo-European linguistics founded by R. Rask and F. Bopp generally disregarded living languages and dialects. In those days of exciting discoveries about the genetic relationships of languages, the principal aim of scholarship was to shed light on the earliest vestiges of language. Modern dialects could be of interest only if historical records were of more recent date or not very substantial (e.g. Lithuanian).[50] It was not until thirty years had elapsed after Schmeller's fundamental work that a comparable figure entered the scene in K. Weinhold.[51] K. Müllenhoff,[52] a prominent representative of the Grimm school, further stimulated research in dialectology by his thesis that modern dialect boundaries reflect early tribal borders ("Stammesgrenzen"). The ensuing controversy over the significance of modern dialect divisions was to endure to our day.

2.1.4 The method followed in relating modern dialects to their earlier historical stages remained in force through much of the neogrammarian period. Dialect areas were loosely identified with certain scribal peculiarities encountered in medieval texts. Dialect features that were singled out as characteristic for a given area could reflect regional scribal practices, or they might be

indicative of truly linguistic differences. For the purposes of philological research, i.e., discovering the origin and history of manuscripts and editing texts, paleographic and orthographic evidence was used with little regard for the underlying facts of language and dialect. Thus the phonology of a grammatical work reflecting such philological methodology is generally little more than a statistical account of the graphemes used to express the reflexes of a reconstructed protosystem. The properly linguistic task of seeking the phonetic-phonemic identity of early graphemic systems is still largely unfinished.[53]

In the instance of Old High German, the number of known scriptoria which need to be considered in tracing the history of OHG manuscripts is relatively small. Old tribal and political divisions cannot be determined with accuracy because of the lack of attested place names. Under these circumstances, it was not very difficult for Karl Müllenhoff and subsequent editors of medieval texts to relate manuscripts with shared graphemic features to vaguely known Germanic tribal seats and later "Stammesherzogtümer".[54] The familiar labels Bavarian, Alemannic, Central Franconian, etc. have become standard terminology. Their use was carried into Middle High German and New High German with only slight modifications. So strong was the belief that dialect divisions corresponded to early tribal boundaries that historians, in drawing early tribal borders, relied on modern dialect evidence where no dependable historical sources were available. As late as 1880 the

well-known Spruner-Menke historical atlas simply places the border between Saxons and Franks along the ik/ich isogloss.[55] While it may be reasonable to assume that dialect borders and political units were virtually coterminous in the early Middle Ages, the conclusion that the distribution of modern dialect divisions coincides with ancient tribal boundaries is a fallacy (see 2.1.7).

2.1.5 Hand in hand with the view of uniform dialect regions reflecting earlier tribal borders went the neogrammarian concept of the regularity of sound change. In fact, the two theories seemed to lend support to each other: the assumed existence of linguistically uniform dialects presupposed that sound laws operated without exception within a given area. Conversely, if the dogma of the Ausnahmslosigkeit der Lautgesetze is to be considered valid, it must have caused uniform dialect areas to emerge. As long as little was known about the nature and distribution of modern dialects, this oversimplified conception of dialectology went unchallenged. When a more accurate picture began to appear in the form of accumulating dialect data, the widely accepted Ausnahmslosigkeit was viewed with more and more skepticism.

2.1.6 The systematic study of German dialects did not begin on a comprehensive scale until Georg Wenker started to send out his now famous forty Wenkersätze[56] to the school teachers across the country. These sentences contained a basic vocabulary reflecting the day-to-day living

in a rural or small-town milieu. They were to be rewritten in the local dialect by school teachers within the German Empire, using a make-shift system of notation adapted from the writing system of standard German. Despite the obvious drawbacks of using untrained "field workers"[57] and the herculean task of editing the large quantities of information,[58] the linguistic atlas of Germany (DSA = Deutscher Sprachatlas) could be sent to press in 1926. Under the editorship of F. Wrede, W. Mitzka, and B. Martin, a selection of the original Wenker collection had been turned into an impressive volume of 128 maps by 1951.

G. Wenker's work was the outgrowth of rigorous neogrammarian training. His plan was to put the theoretical concept of the regularity of sound change as championed by A. Leskien and K. Brugmann to an empirical test.[59] His initial survey of shifted and unshifted forms in the Lower Rhine area[60] did not lead to the expected uniformity of distribution. He was amazed at the bewildering complexity of intersecting isoglosses that resulted where he had hoped to find clearly-defined dialect areas. He then decided to extend his research over the whole of Westphalia, later over all North Germany, and eventually over Central Germany as well. This early work was carried out from 1879-80. In 1887 the South (Baden, Württemberg, Bavaria, and the then German Alsace-Lorraine) was added to the survey to complete the total area of what was then the German Empire.[61] Material from outside the borders of Germany (Luxemberg, Switzerland, Austria, Czechoslovakia,

and more recently, South Tyrol, Poland, Transsylvania) was gathered later and added to the collection.

2.1.6.1 There was no precedent that Wenker could follow in the compilation of his linguistic atlas. The French linguistic atlas (Atlas linguistique de la France), primatily a word atlas, by J. Gilléron and E. Edmont, was not begun until 1903 but completed as early as 1910. Its methodology differed from Wenker's mainly in the employment of a trained field worker. Wenker used local school teachers, the majority of whom were unskilled in phonetics. The result was that the French linguistic atlas contains professionally recorded material from a relatively small sample of French towns (639). It has the advantage of having been compiled with a view toward accuracy and uniformity of data. The DSA, on the other hand, reaped a wealth of information from virtually every village that had at least an Elementary School (originally 30,000).

2.1.6.2 The first and only published fascicle of the original atlas (often referred to as the Wenkeratlas as opposed to the DSA) appeared in 1881 under the title Sprachatlas von Nord- und Mitteldeutschland auf Grund von systematisch mit Hilfe der Volksschullehrer gesammeltem Material aus zirka 30000 Orten bearbeitet, entworfen und gezeichnet von Dr. G. Wenker.[62] Later parts of the atlas were to show important changes suggested by the Preussische Akademie der Wissenschaften, Wenker's sponsoring organization. In the future the atlas plates were to contain the entries

for one word only per map. In his first part Wenker had used combined maps showing several different features by using colored lines. Also, in order to avoid crowding, the new maps were not to contain the initials of all place names. These changes resulted in greater clarity of arrangement and a greater selectivity in the material chosen for eventual publication. The Academy decided in favor of making less but carefully chosen material accessible to scholarship everywhere instead of attempting to publish all the collected data, an immense and probably far too costly task.

G. Wenker's[63] death in 1911 left Ferdinand Wrede with the responsibility of continuing the atlas project. It was under his guidance that the first plates of the DSA could finally be sent to the printer (1926), half a century after the first questionnaires had been sent out by G. Wenker. The complete title points out the fact that only a fraction of the material gathered by Wenker has been incorporated into the published atlas: Deutscher Sprachatlas, auf Grund des von G. Wenker begründeten Sprachatlas des Deutschen Reiches und mit Einschluss von Luxemburg, in vereinfachter Form bearbeitet bei der Zentralstelle für den Sprachatlas des Deutschen Reiches und deutscher Mundartforschung unter der Leitung von F. Wrede.[64] The work of Wrede and his students in connection with the atlas gave rise to the many volumes of the Deutsche Dialektgeographie: Berichte und Studien über G. Wenkers Sprachatlas des Deutschen Reiches (1908- ). In 1933 the editor-

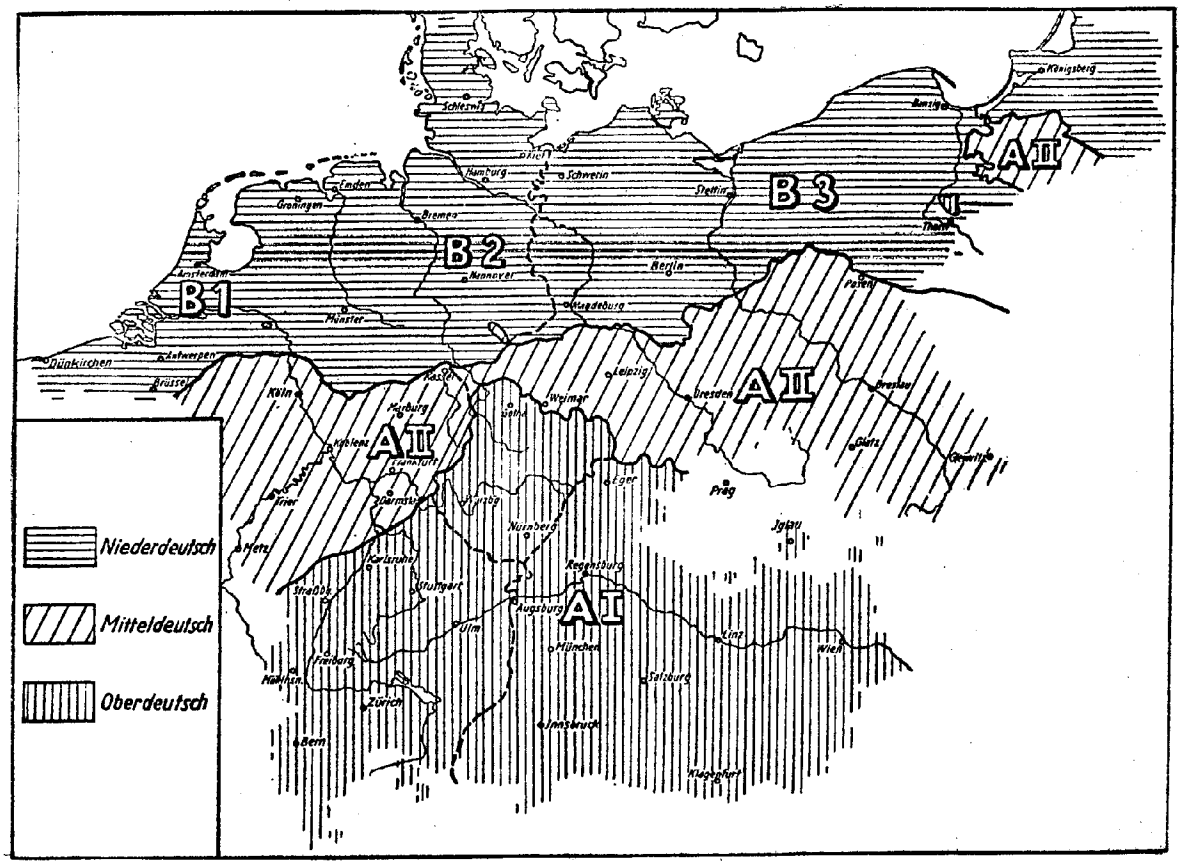
ship was handed over to Walther Mitzka[65] and Bernhard Martin, who saw the completion of the published version of the DSA in 1951.

2.1.7 The DSA, despite its various shortcomings (2.2.1, below), taught a basic lesson in dialect geography: modern dialect divisions cannot be identical with early tribal borders. Dialect borders are not permanently fixed. Few modern dialect areas have remained untouched by the cultural, political, and economic forces that bring linguistic change in their wake. Henceforth much fruitful work would be devoted to the historical and geographic conditions that lead to changes in the distribution of dialect forms.[66] The extensive atlas collection made it possible for F. Wrede to devise a classification of German dialects based solely on the evidence of modern dialects.

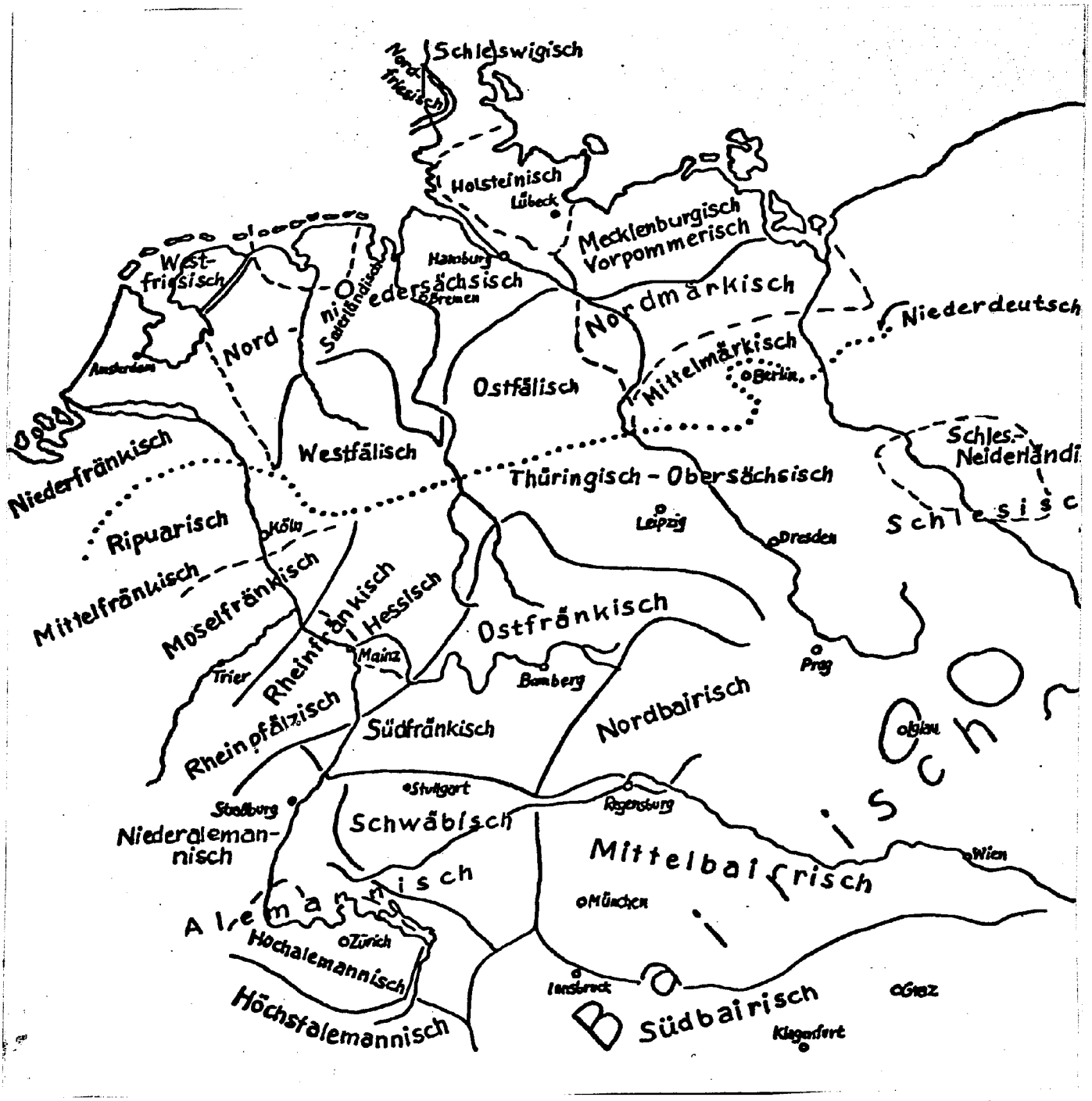
2.1.8 F. Wrede's classification is an attempt to divide the total area of contemporary Germany (including Luxemburg and neighboring Dutch dialects for which he had dialect data) into progressively smaller dialect regions by using mainly binary divisions. Any traditional dialect names that he uses are strictly redefined in terms of major isophones and isomorphs. Historical developments are for the most part completely disregarded.[67] In choosing useful dividing lines between dialects, both length and clarity of isoglosses are taken into consideration. Isoglosses serving as dialect borders are ranked above other divisions if they extend over a wider territory. Map 56 of the DSA

contains F. Wrede's division of the German dialect area into three major dialects ("Grossmundarten") that are still the basis of most modern dialect classifications (see Maps 7 and 8). The only major isoglosses that serve as dialect borders along their entire course are the ik/ich line separating Low German from High German and the appel/apfel isogloss separating Central German from Upper German. In Wrede's detailed classification (2.1.10, below) many isoglosses are used partially and for various purposes (e.g., his fest/fescht line). The labels used by Wrede--B1, B2, B3 for the three major divisions of Low German, and AI, AII for Upper and Central German--suggest that he saw the primary division between the B dialects (B1, B2, B3, all Low German) and the A dialects (AI, AII for High German).

2.1.9 Wrede chose the ik/ich line, also called the Ürdinger Linie (cf. note 60) (DSA 4)[68] as his major isogloss separating Low German from High German. It marks the northernmost extension of forms for 'I' showing the effect of the OHG shift of k > x.[69] The ik/ich line follows this approximate course: starting at the Dutch border near Venlo (Holland) it pursues an easterly course to Kempen (k), Krefeld (ch), crossing the Rhine north of Ürdingen (ch), then in a south-easterly direction to Elberfeld, Bergneustadt (ch), Freudenberg (ch); then following a north-easterly course to Hilchenbach (ch) through the Rothaargebirge to Hallenberg (ch), crossing the Eder river near




Map 7.--F. Wrede's "Grossmundarten" (DSA 56), according to B. Martin, Die deutschen Mundarten, illus. 21




Map 8.--Dialect divisions according to E. Schwarz, Deutsche Mundarten

Fürstenberg, on to Zierenberg (k), Immenhausen (k), crossing the Fulda between Kassel and Münden, crossing the Werra near Hedemünden, to Worbis (ch), passing east of Sachsa, to Berneckenstein (k); continuing east to Ballenstedt (k), Ermsleben (k), then north-east, crossing the Bode river near Stassfurt and the Saale near Calbe, from there north to the Elbe near Barby, following the Elbe east to Wittenberg (ch); then turning south-east to Annaburg (ch), Sonnewalde, from there north to Wendisch Buchholz, following the Dahme river to the north; then looping south it follows the Spree river east, to Friedland (ch), then north to Müllerose (k), crossing the Oder (political border with Poland), to Reppen, Zielenzig, Königswalde, reaching the Warthe river east of Landsberg; it then swings down to Schwerin a. d. Warthe (ch), crossing and recrossing the Warthe river as far as north of Posen to the former Polish-German border.

All dialects north of the ik/ich line are referred to as Low German (Wrede's B1, B2, B3). A few islands of High German speech exist north of the line, e.g., a colony of Rhenish Franconian speakers near Kleve.[70] Along the coast of Schleswig-Holstein and on the off-shore North Frisian islands Frisian is commonly spoken. The DSA received completed questionnaires from the islands of Sylt, Amrun, Föhr, Oland, Langeness, Gröde, Hooge, and the coastal strip of Schleswig-Holstein.[71] In East Frisia Low German dialects have crowded out the original Frisian. In the Saterland (located to the west of Oldenburg) four

villages continue to use Frisian with Low German admixtures.[72] The dialects to the south of the Ürdinger Linie are referred to as High German (Wrede's AI, AII). The High German area is further subdivided into Upper German (Wrede's AI) and Central German (Wrede's AII). The isogloss Wrede chose to define the two major subdialects is the appel/apfel line (DSA 3). Dialects showing unshifted Germanic *pp in medial position are called Central German (AII); those with the shifted form pf are known as Upper German. The line originates at the French-Alsatian border (Alsace here shown as part of Germany) in the Vosges mountains near the rise of the Breusch river; it turns northeast, passing north of Reichshofen (pf), crosses the Lauter river between Bergzabern (pp) and Weissenburg (pf); continuing east it crosses the Rhine near Germersheim, follows the Rhine in a north-easterly direction as far as south of Speyer (pp), then turning north-east to Schwetzingen (pp), crossing the Neckar near Heidelberg (pp), it continues north-east, crossing and recrossing the Neckar near Eberbach (pf); from there it turns north along the Odenwald to the Main west of Miltenberg (pf), crossing it near Kleinheubach. Continuing in a north-easterly direction, it passes by Stadtprozelten (pf), Lohr a. Main (pf) and through the Spessart mountains to Reneck (pf), Brückenau (pp) and through the Rhön mountains to the Fulda river, crossing it near Gersfeld; from there it switches north toward Tann (pf), around Geisa (pf), crossing the Verra near Vacha (pp), recrossing the Verra north of Vacha,

then recrossing it in an easterly direction near Treffurt (pf); near Mühlhausen it crosses the Unstrutt river, recrossing it south of Tennstedt, continuing south-east, making a loop around Erfurt (pp); passing between Erfurt and Weimar (pp), it crosses the Ilm river between Kranichfeld (pf) and Tannroda (pp), continuing east to Blankenhain (pp), crossing the Saale near Kahla (pf); it then switches back across the river and recrosses it near Lobeda, turning east toward Stadtroda (pp) and on to the Elster river, arching back to the west as far as east of Triptis; turning east, it again crosses the Elster and then proceeds south to the Czech border, passing east of Kirchberg (pp), crossing and recrossing the Mulde river near Schönbeck (pf). The isogloss reaches the Czech border near the headwaters of the Elster river in the Erzgebirge.

After criteria[73] have been established for separating Low German from High German, and Central German from Upper German, further major divisions are made as follows: Low German is divided into Low Franconian (BI), Lower Saxon (BII), and East Low German (BIII). This threefold division is based on the 1 plural present verb ending of wir mähen. The -et area of Lower Saxon (BII) separates the -en areas of Low Franconian (BI) to the west, and of East Low German (BIII) to the east.

2.1.10 Wrede's "Grossmundarten" (DSA 56; see Map 7) have become widely accepted. Smaller dialect divisions are more controversial, as might be expected. The complete list of Wrede's elaborate system of major and minor divisions follows:[74]

A. Hochdeutsch: ich
  I. Oberdeutsch: Apfel
    a. enk 'euch' (Bayrisch)
      1. Südbayrisch-Oberpfälzisch: fest 'fest'
        α. Südbayrisch: postvokalisches l palatalisiert
          αα. Oberbayrisch: Umlaut in 'uns'
          ββ. Niederbayrisch: uns
        β. Oberpfälzisch: keine Palatalisierung des l
          αα. Südteil: macha 'machen' (Böhmerwald)
          ββ. Nordteil: machn (Hersbruck-Eger)
      2. Schwäbische Grenzmundart: fescht
        α. Südteil: Umlaut in 'uns'
        β. Nordteil: uns
    b. *euch-Gebiet (Alemannisch-Hochfränkisch-Südthüringisch)[75]
      1. Die alemannisch-fränkischen fescht-Gebiete
        α. Hochalemannisch: Chind 'Kind'
          αα. Westhochalemannisch: mähe 'mähen'
          ββ. Osthochalemannisch: mähet
            1,1. Linksrheinisch: Hüss 'Hause'
            2,2. Rechtsrheinisch: Hus
        β. Niederalemannisch: Kind
          αα. Westniederalemannisch: Is 'Eis'
            1,1. Elsässisch: Hüs
              aa. Südelsässisch: bisch 'sei'
              bb. Nordelsässisch: seï
            2,2. Rechtsrheinischer Teil: Hus
              aa. Schwarzwäldisch: mähe
                I,I. Südschwarzwäldisch: bisch
                II,II. Nordschwarzwäldisch: seï
              bb. Südschwäbische Grenzmundart: mähet
          ββ. Ostniederalemannisch-fränkisch: Eis
            1,1. Schwäbisch: mähet
              aa. Westschwäbisch: wai 'weh'
                I,I. Westliches Drittel: *nü 'neue' (nei, ni)

II,II. Ostteil: *nū (nui, nub)
AA. Sachsenheim-Ebingen: hoass, haiss 'heiss'
BB. Sigmaringen, Ulm, Marbach: hoiss
bb. Ostschwäbisch: wē, wea
I,I. Südostschwäbisch: 'uns' mit Umlaut (eīs, eus)
II,II. Nordostschwäbisch: 'uns' ohne Umlaut (uns, ons, os)
2,2. Alemannisch-fränkische Grenzmundart: mähe
aa. Südhälfte: nicht Brūder (ue, ou)
I,I. Ostecke (Ries): Föiss 'Füsse'
II,II. Sonst: Fiəss
bb. Nordhälfte: Brūder
I,I. Nordost: is 'ist'
II,II. Südwest: isch
2. Die hochfränkisch-thüringischen fest-Mundarten
α. Ost: reiner Infinitiv hat -n (machn)
αα. Oberpfälzische Grenzmundart um Nürnberg: vëir, vöir 'vier'
ββ. Ansbach-Plauen: vier
1,1. Ansbach-Hof: Wiesn 'Wiese'
2,2. Vogtland: Wiese (Wiese, Wies)
β. West: reiner Infinitiv ohne n (mach, machə)
Rothenburg-Salzungen: sonstige n > e (gebroche)
Kitzingen-Rudolstadt-Eisenach: gebrochen und gebrochn
1,1. Kitzingen-Saalfeld: Stückle, Stückel
2,2. Rudolstadt-Eisenach: Stückchen
II. Mitteldeutsch: Appel
a. Westmitteldeutsch: Pund 'Pfund'
1. Rheinfränkisch: was
α. Südrheinfränkisch: fescht
αα. Der lothringische Teil: Is

ββ. Pfälzisch (Bayr. Pfalz, Rheinpfalz, Kurpfalz): Eis

1,1. Zweibrücken-Bingen: gebroch

2,2. Hardt-Odenwald: gebroche

β. Nordrheinfränkisch (Hessisch): fest

αα. Lahn-Kinzig-Mundart: Eis

1,1. Mittelhessisch (Marburg-Weilburg-Gelnhausen): Brouder

aa. Marburg-Grünberg: Fläsch, Flēsch 'Fleisch'

bb. Grünberg-Gelnhausen: Flasch, Floasch

2,2. Der übrige Rahmen: Brüder

aa. Mainz-Darmstadt-Aschaffenburg: erzālt, erzīlt 'erzählt'

bb. Schlüchtern-Treysa-Berleburg: erzālt, (-zōlt, -zallt)

ββ. Fulda-Mundart: Is

1,1. Nordteil: glaube

2,2. Südteil: glaub, glau

2. Mittelfränkisch: wat

α. Moselfränkisch-Westerwäldisch: Dorf

αα. Ostmoselfränkisch-Westerwäldisch: auf

1,1. Saarlouis-Koblenz: gebroch

aa. Bolchen-Birkenfeld: fescht

2,2. Westerwäldisch: gebroche(n)

ββ. Westmoselfränkisch: op 'auf'

1,1. Luxemburgische Nachbarmundart: hen 'er'

aa. Diedenhofen-Merzig: fescht

bb. Saarburg-Prüm: fest

2,2. Der Rest: he, er

β. Ripuarisch: Dörp

αα. Aachen-Köln: machen

1,1. Westripuarisch: *reit 'recht'

2,2. Ostripuarisch: rech(t)

ββ. Niederfränkische Grenzmundart: maken

b. Ostmitteldeutsch: im allgemeinen Fund 'Pfund'
1. Nordthüringisch: Infinitiv mache oder mach
α. Eschwege-Nordhausen-Erfurt: Is
β. Weimar-Querfurt-Altenburg: Eis
2. Obersächsisch-Schlesisch: Infinitiv machen oder macha
α. Ostmitteldeutsch von unterer Saale bis Warthe: jedes (e)n erhalten auch in den
αα. Südobersächsisch (Erzgebirgisch): Gäns 'Gänse'
ββ. Harzgerode-Dresden-Posen: Gänse
1,1. Halle-Dresden-Birnbaum: uns
aa. Halle-Dresden-Görlitz: dir und dich
I,I. Halle-Dresden: in 'in'
II,II. Oberlausitz: a
bb. Streifen längs der Grenze: ein Kasus für 'dir' und 'dich'
I,I. Harzgerode-Finsterwalde: dich
II,II. Lübben-Birnbaum: dir
2,2. Sorau-Schwiebus-Posen: ins
β. Schlesisch: da 'den'
αα. Gebirgsschlesisch: macha
1,1. Löwenberg-Münsterberg: ins 'uns'
2,2. Glatz-Leobschütz: ons
ββ. Mittlere und untere Oder (Grünberg-Oppeln): machen
1,1. Mittlere Oder (Grünberg-Öls): Hōs, Hās, Hoas 'Haus'
2,2. Sonst: Haus
3. Hochpreussisch: alle -en > e
α. Westhochpreussisch: Dorf
β. Osthochpreussisch: Derf

B. Niederdeutsch: ik
I. Niederfränkisch: mähe(n)
a. Ripuarisch-westfälisches Übergangsgebiet: auk, enk, ink, önk 'euch'
b. Unterster Rhein: meist ow (wenig öch, ollej)

II. Niedersächsisch: mähet (ausser a.1.β.αα.1,1; a.2.β.ββ 1,1; a.2.β.ββ.3,3) 'mähen'
a. Dortmund-Hamburg: Dativ mi 'mir'
1. Westfälisch: gebruaken
α. Lüdenscheid-Dortmund: ink 'euch'
αα. Lüdenscheid: Accusativ mik
ββ. Dortmund: Accusativ mi, meï
β. Münster-Arolsen: nicht ink (sondern ju, juch u.a.)
αα. Attendorn-Arolsen: Accusativ mik
1,1. Hessissche Grenzmundart: mähen
2,2. Sonst: mähet
ββ. (Münster)-Osnabrück-(Paderborn)-Arnsberg: Accusativ mi, meï, mui
1,1. Münster-Paderborn: sin, sen, seï, si '(ich) bin'
aa. Münsterland: bauen 'bauen'
bb. Soest-Gütersloh-Paderborn: buggen, boggen, bowwen, böbben
2,2. Tecklenburg-Melle: bin, ben
2. Essen-Bremen-Kiel: gebroken, -a-
α. Holländische Nachbarschaft: nicht *ju 'euch', sondern enk, ink, u, uw, ow
β. Meppen-Lübeck: *ju
αα. Meppen, Minden: Gänse (keine Apokope)
1,1. Meppen-Dümmersee: hef '(er) hat'
aa. Meppen: i 'ihr'
bb. Quakenbrück: ji 'ihr'
2,2. Wildeshausen-Nienburg-Detmold: het
aa. Wildeshausen-Steinhuder See: bin 'ich bin'
bb. Lippisch (Detmold-Bückeburg): sin
ββ. Nordniedersächsisch: Gäns (Apokope)
1,1. Ostfriesländische Übergangsmundart: mähen
2,2. Oldenburg-Fehmarn: mähet
aa. Oldenburg-Bremen-Soltau: us
bb. Jever-Hamburg-Fehmarn: uns
I,I. Jever-Lüneburg: jo, jou 'euch'

II,II. Lauenburg-Lübeck: jūch, jüch
III,III. Glückstadt-Kiel: ju, jü
IV,IV. Ditmarschen: jüm
3,3. Schleswiger Übergangsmundart: mähen
aa. Westliche Hälfte: jüm, jem
bb. Östliche Hälfte: jū
b. Leine-Aller Mundart (Hannover-Braunschweig): Dativ dik
1. Celle-Ülzen: wes 'sei' (Imperativ)
α. Ülzen: Gäns (Apokope)
β. Celle: Gänse (keine Apokope)
2. Helmstedt-Hofgeismar: *si 'sei' (Imperativ)
α. Hannover-Wernigerode: bin '(ich) bin'
β. Hameln-Göttingen: sin
III. Ostniederdeutsch: mähe(n)
a. Westliches Ostniederdeutsch: alle en erhalten (beissen)
1. Südliche Hälfte: Gänse
α. Ostmitteldeutsche Übergangsmundart: machen
β. Sonst: maken
αα. Halberstadt-Magdeburg: Dativ dik
ββ. Burg-Oranienburg-Neudamm: Dativ di
1,1. Genthin-Nauen: ebrochen
2,2. Potsdam-Freienwalde: jebrochen
2. Nördliche Hälfte: Gäns
α. Salzwedel-Stettin: Brōder 'Bruder'
β. Mecklenburgisch: Braurer
b. Mittleres Ostniederdeutsch: alle verbalen -en > e ausser im Gerundium (trinken)
1. Netzemundart: Brōder
2. Nördlicher Teil: Brauder
α. Pommersch: heff '(ich) habe'
β. Bromberg-Lauenburg: hebb
αα. Bütow-Lauenburg: twai 'zwei'
ββ. Brahe-Mundart: twē
c. Niederpreussisch (östliches Ostniederdeutsch): alle -en > e
1. Danzig-Königsberg: rein niederdeutsch twē
2. Nordenburg-Gumbinnen: mit hochdeutschen Elementen zwe(i)

2.1.11 The isoglosses used by F. Wrede in his overall classification are widely accepted as significant and well-defined. There may be disagreement with regard to sub-grouping his "Grossmundarten", but Wrede's basic divisions continue to serve as a starting point for establishing lesser dialect borders (e.g., E. Schwarz's classification, Map 8). Yet the value of the atlas collection and Wrede's new methodology did not receive instant recognition by all scholars. Two prominent dialectologists, O. Bremer[76] and K. Bohnenberger, continued their work independently, largely adhering to Müllenhoff's traditional "Stammesgrenzen". Bohnenberger gives a hint of a more flexible position when he says: "Es ist nicht die Mundart nach der Stammesgrenze zu bestimmen, falls mit letzterer gar keine sprachlichen Grenzlinien zusammentreffen; aber wo unter verschieden annähernd gleich bedeutsamen sprachlichen Grenzlinien die eine mit der Stammesgrenze zusammentrifft oder in deren Nähe hingeht, die anderen aber weit abweichen, da hat man jener Sprachgrenze das Zusammentreffen mit der Stammesgrenze als Vorzug anzurechnen und nach ihr die Grenze der Mundarten zu bestimmen."[77] A similar remark appears in his Alemannische Mundart.[78]

Another Alemannic scholar,[79] H. Fischer, following the example of Romance dialectology (P. Meyer), refused to recognize clearly defined dialect areas. He accepts dialect borders as indicating only the distribution of individual dialect features. His Geographie der schwäbischen Mundart[80] ignores all historical and political divisions.

Also working independently without the aid of the atlas collection was E. Kranzmayer in compiling his Historische Lautgeographie des gesamtbairischen Dialektraumes, 1956 (with 27 maps). As the title indicates, the work is history-oriented.

A recent work by the Russian Germanist V. M. Schirmunski[81] devotes a whole chapter ("Der 'Fränkische Dialekt' von Engels und die Gliederung der deutschen Mundarten," pp. 25-55) to Friedrich Engels' dialectology. Engels' work on Franconian, written 1881-1902, was first published in Russia in 1935. It contains a critical account of prevalent systems of dialect classification ("oberflächlicher Schematismus"). Basically, Engels' view is not very far from the historically oriented views of early dialectologists. To him dialect borders reflect true historical boundaries, political and economic. Later developments that lead to a shifting of isoglosses have to be excluded from a "scientific" dialect classification. Since Engels' brand of dialectology is referred to as "Marxist", it might be suspected that the prominence accorded it in this book is not solely due to its linguistic merits.[82]

According to B. Martin, himself connected with the DSA, the available atlas material is still insufficient for an accurate classification of the German dialects:

> Aber die bisherigen Arbeiten reichen noch nicht aus, eine Übersicht über alle deutschen Sprachlandschaften zu geben, weil man nicht mit aller Energie die von K. Haag, F. Wrede u. a. begonnene grosse Aufgabe der

> Durchführung einer genauen dialektgeographischen Aufnahme in allen deutschen Landschaften beendigt hat, die zur Ergänzung der Wenkerbogen unerlässlich war und ist. Erst wenn diese gelöst ist, und die Kultur-, Landes-, Wirtschafts-, Siedlungsgeschichte und Volkskunde vergleichbare Ergebnisse für alle Landschaften bereitgestellt haben, wird man eine befriedigende Karte der Sprachlandschaften ausarbeiten können. Das ist aber noch ein weiter Weg.[83]

Since a preliminary ordering of dialects appears to be desirable, out of practical considerations, B. Martin accepts F. Wrede's "Einteilungskarte der deutschen Mundarten" (DSA Map 56, DSA Text pp. 247-54) as the best solution.

## 2.2 The Location of the Dialect of Bergstetten within the Bavarian Dialect Area

2.2.1 For the purpose of drawing lesser linguistic borders within Bavaria, and more specifically, for placing the dialect of Bergstetten in terms of isoglosses, a brief evaluation of the available atlas material is called for. The overall value of the collection as such has been pointed out above. Nonetheless, B. Martin's call for efforts to bring the atlas up to date and to supplement it (2.1.11, above) is entirely justified.

One general shortcoming of the atlas is its considerable age. It must be assumed that the dialects have not remained static since the time the atlas survey was made. A. Bach calls the atlas maps "historische Sprachkarten": "Da die Aufnahmen für den deutschen Sprachatlas zum grossen Teil mehr als 60 Jahre alt sind [in the case of Bavarian 78 years] und die Mundarten sich seitdem vielfach geändert haben, stellen die Wenkerschen Karten im Grunde historische Sprachkarten dar, gelten also nicht unbedingt für die Gegenwart."[84] The general trend of recent changes occurring in Bavarian is discussed below (2.2.4).

2.2.2 By far the greatest obstacle to the efficient use of the atlas stems from the nature of the original atlas survey. Since Wenker's questionnaires were filled in by school teachers mostly untrained in phonetics, using the standard German alphabet, inaccuracies and inconsistencies must be expected. In many cases the atlas user's task in

interpreting entries can be compared to that of seeking the phonetic-phonemic identity of graphs found in historic texts. Conventional spellings and attempts at phonetic spellings are often difficult to disentangle. This difficulty is not without its interesting sidelights,[85] but it cannot be conducive to efficient and accurate dialect research. In the following some of the more obvious cases of inconsistent spellings are listed.

A. Bach[86] points out that the value of <t> and <d> is largely unclear; <g> must be variously interpreted as [g], [j], [x], [k]; palatalized consonants[87] are not indicated. In addition to these inaccuracies, major difficulties of interpretation are found in the instances listed below. The difference between voiced and voiceless (lenis) initial consonants is not reflected in the entries for '(ge)broch(en)' (DSA 29) and 'bau(en)' (DSA 69-72). All entries show initial <b>, although there is a clear phonetic difference between e.g., Bavarian -broch- (lenis [p]) and East Central German -broch- [b]. The same difference is ignored in the maps for 'dorf' (DSA 47) and 'dreschen' (DSA 118-21; one t-spelling occurs in Switzerland). The entries for 'trinken' (DSA 53) on the other hand show the conventional spelling <t-> throughout the High German dialect area. Here, in an effort to show a contrast between unshifted d- forms and High German t- forms, the voiced/voiceless contrast has found graphemic expression. However, since 'dorf' and 'dreschen' were entered as Bavarian d- forms, a spurious contrast between <d> and <t> arises

when 'trinken' is entered as a Bavarian t- form. Phonetically the Bavarian entries doaf and trink have the same initial consonant [t] (lenis).

Similar problems arise for the unwary atlas user from the retention of traditional and inconsistent spellings in the entries for 'vier' (DSA 57) which are consistently written with <v>, and the map for 'Füsse' (DSA 9) which only contains <f> spellings. The difficulty is compounded in areas where f- may occur as [v], such as in Ripuarian and in the adjoining Low Franconian dialects, e.g., [vōs] 'Fuss' in Schlehbusch (south of Berg).[88]

The symbols <ß> and <s> are used as in conventional orthography in the entries hāß, hēß, etc., for 'heiß' (DSA 16) and in '(er) ißt' as opposed to '(er) ist' (DSA 19). But DSA 22 ('sei' imperative of 'sein') shows weß, wäß for the area west of Bremen, and wes, wäs east of Bremen. Even if these contrastive spellings are to reflect a phonetic difference (such as the quantity of the preceding vowel), their use must be regarded as inconsistent where it merely follows the standard spelling.

The fact that initial /s/ is generally voiced in Central and Low German but voiceless and lenited in South Germany does not become apparent from DSA maps 22 ('sei'), 108 ('sind'), 83-86 ('Salz'). All entries are written with initial <s>.

Dialect forms for 'weh' (DSA 33), 'zwei' (DSA 103), 'Schwester' (DSA 91), 'was' (DSA 127), 'Wort' (DSA 112-15) show <w> without making phonetic distinctions which are

known to exist. <w> stands for a voiced labiodental fricative initially in most Low German dialects, usually for a bilabial after a consonant. In most High German dialects <w> would represent a bilabial sound in both positions.

A similar case of "underdifferentiation" exists with regard to the <ch>-grapheme. All entries for 'recht' (DSA 34) contain <ch> which in most dialects stands for a palatal fricative. However in areas where /x/ has no palatal allophone following front vowels, such as High Alemannic and South Bavarian, <ch> must be viewed not as [ç] but [x].

Similar inconsistencies and inaccuracies are found in the graphemes used to represent vowels and diphthongs. Rounded and unrounded front vowels are not clearly differentiated. <ö> is used to represent a mid front open rounded vowel in the Bavarian form zölt 'zählt' (DSA 52). Both <e> and <ö> are used to describe the unrounded vowel in the Bavarian equivalents for 'schön(e)' (DSA 49).[89] Another way of spelling [e] occurs in the map for 'Gänse' (DSA 45) where the Bavarian forms are spelled <ä>, following conventional orthography. Thus [e] is "overdifferentiated" by the use of <e>, <ö>, <ä> in the atlas. <ö> is an example of graphemic "underdifferentiation" since it may represent both [ö] and [e]. DSA 95 shows Bavarian forms for 'müde' to be müad and möid. In both cases the diphthongs have unround first elements, phonetically [iɑ̯] and [ɛi̯].

The digraph <ie> is used to spell [i] in words for 'Wiese' (DSA 41) and 'sich' (DSA 36 has si and sie). Elsewhere <ie> indicates a diphthongal [iə̯], as in some

Bavarian entries for 'flieg-' (DSA 123). This is another case of graphemic "underdifferentiation".

The diphthongs [ai̯] and [ei̯] are not clearly differentiated in their graphemic representation. Forms for 'beiss(en)' (DSA 6) are entered as beiss-, baiss- in Bavaria; <ei> is used in words for 'Eis' (DSA 47), 'sei' (DSA 22). Here the phonetic reality of the spelling <ei> is [ai̯] as in conventional New High German spelling. But the same spelling <ei> occurs in Swabian where it represents [ei̯]. The pronoun 'euch' is entered as eich (DSA 21) in the Nürnberg area where a phonetic transcription would require [ai̯].

The unstressed ending -e in '(schön)e' (DSA 50) is spelled variously as -e, -i, -a, -er. It may be assumed that at least some of these spellings attempt to indicate a shwa articulation.[90]

2.2.3 In addition to the age of the material compiled in the DSA, and its shortcomings in phonetic matters, one further aspect of the atlas needs to be considered in this context. Wenker's questionnaires went out to towns and villages which boasted at least one local school. The village of Bergstetten has no school and therefore is not recorded on the DSA atlas maps. The scale of the original Wenker atlas was reduced from 1:1,000,000 to 1:2,000,000 for most of the maps in the published version (=DSA). It must therefore be expected that the isogloss maps used here to define the location of the speech of Bergstetten

contain minor inaccuracies. The age of the atlas, the reduced scale of the maps, and the absence of atlas data on Bergstetten make the drawing of up-to-date isoglosses virtually impossible. The chief purpose of the maps is to show the relative location of Bergstetten on the northern edge of the North-Central Bavarian transition area. Absolute accuracy and up-to-dateness are therefore not required.

2.2.4 Bavarian is one of the two major Upper German dialects. It includes virtually all the Austrian dialects (except Alemannic Vorarlberg to the extreme west) and the Egerland (now Czech territory with German receding). The enk/euch isogloss separating Bavarian from East Franconian and Alemannic has long been regarded as significant.[91]

The enk/euch line originates at the Czech border near the rise of the Elster river in the Erzgebirge. It arches north and east for a short distance, crossing the Elster north of Adorf (enk), and is then interrupted by a narrow appendage of Czech territory jutting into Germany. It resumes east of Rehan (eich), then, following a southeasterly course, it crosses the Eger river near Weissenstadt (eich), passing Goldkranach (eich), Neustadt (enks), Auerbach (enks), Velden (enks), Hersbruck (enks), Altdorf (eich), Allersberg (enk), Abenberg (eich). From there the isogloss turns south through Spalt (enk), switching east past Ellingen and Weissenburg (eich), again south, crossing and recrossing the Altmühl river west of Eichstätt (enk); jutting back to the north it keeps on a southerly course

down to the Austrian border. It passes by Monhur (enk), crosses the Danube north of Rain (enk), and reaches the Lech river near Rain, following the Lech to Augsburg (euch), Landsberg (enk), and Schongau (enk). At Schongau the isogloss leaves the Lech river but continues parallel to the river down to the Austrian border (DSA Map 21 does not include material from Austria).

The further subdivisions of Bavarian as suggested by F. Wrede (South Bavarian-Upper Palatinate; Swabian border dialect) need to be changed to include the material of the Sudetenland and Austria, which was not available to him. According to E. Schwarz (see Map 8), A. Pfalz[92] and E. Kranzmayer (see Map 6), three large subdialects exist in Bavaria: North Bavarian, Central Bavarian, South Bavarian. F. Wrede uses the isogloss of vocalized l before consonant (e.g., [föɬt] : [föit] 'field') as the dividing line between his North Bavarian-Upper Palatinate and South Bavarian.[93] Following E. Schwarz, B. Martin[94] chooses the tout/tuat '(er) tut' isogloss as the border line. It originates to the east of Ingolstadt near the fest/feŝt line. Following a north-easterly course it loops toward the Altmühl river, crossing it midway between Dietfurt (ou) and Kelheim (ua); passing south of Hemau (ou), it continues to the Laber and Naab rivers. Forming a loop around Regensburg (ua), it turns to the south, crossing the Grosse and Kleine Laber; continuing from there in a north-easterly direction, it moves toward Straubing (ua) and, crossing the Danube, toward Viechtach. Then it describes a wide arc

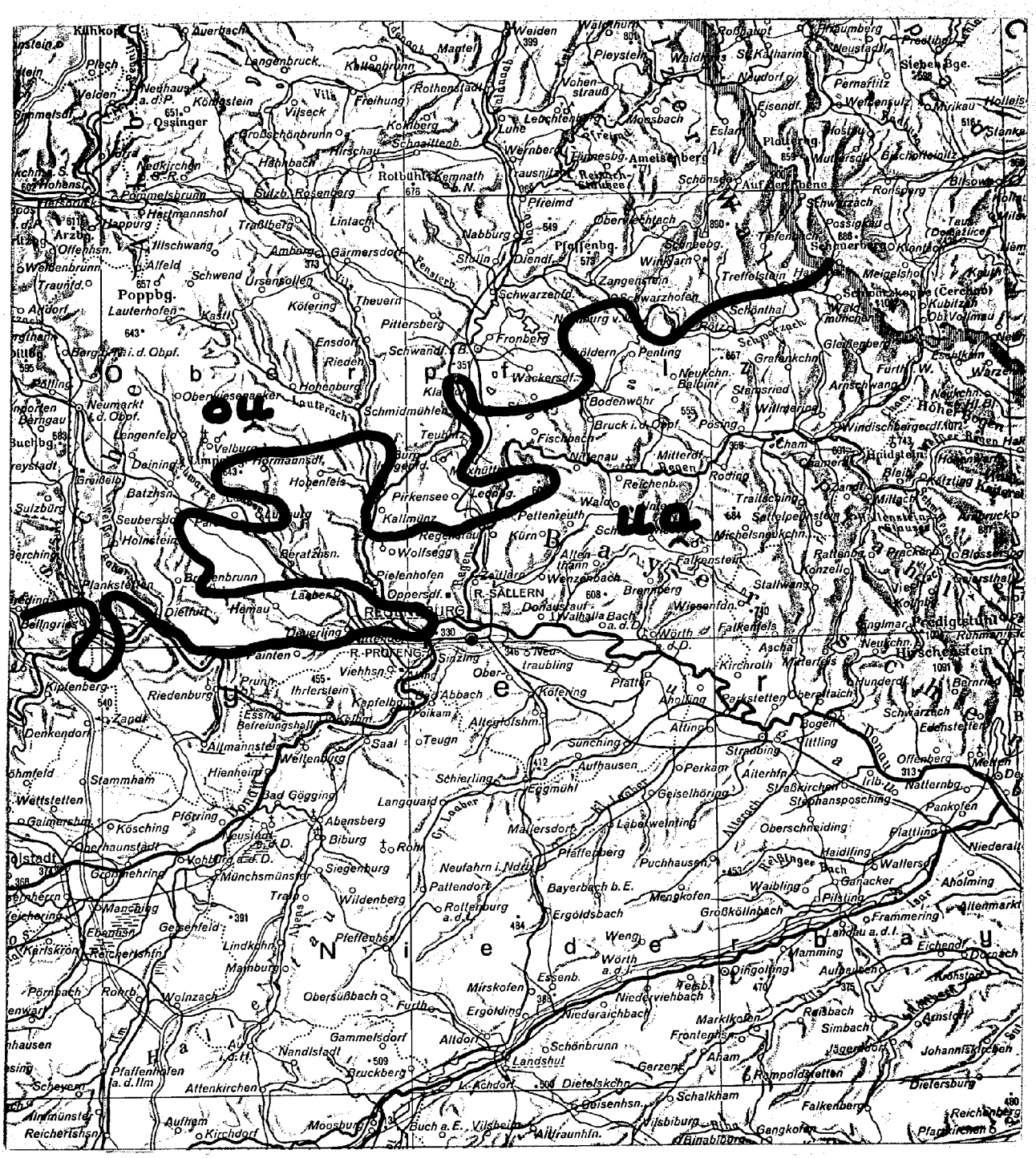
toward Deggendorf (ua) and Regen (ua) on the Regen river, follows the upper course of the Regen river as far as east of Viechtach, and from there to the Czech border. Beyond the border, to the extent German has survived, the tout/tuat isogloss runs through Glasenwald (ua), Holzschlag (ua), Langendorf (ua), Hartmanitz (ua), Unter-Körnsalz (ua), Kochet-Moos (au), Heidl am Ahornberg (ou), Markt Eisenstein (ou).[95]

It has been observed by A. Pfalz,[96] E. Schwarz[97] and E. Kranzmayer[98] that the Central Bavarian dialect area has been expanding at the expense of both North and South Bavarian. The dialect of Bergstetten shows several instances of Central Bavarian forms having become established in originally North Bavarian territory. Thus PGmc. *ō, which in North Bavarian has the regular reflex [ou̯] as in [hou̯t] (OHG huot) 'Hut', shows the Central Bavarian [ua̯] in [mua̯t:ə] (OHG muoter) 'Mutter', [flua̯x:ə] (OHG fluohhan) 'fluchen', [kua̯t] (OHG guot) 'gut'. In this instance the northward expansion of Central Bavarian ua- forms is facilitated by the existence of a [ua̯] diphthong in North Bavarian from a different source, i.e., from ur + C or ur + pause, as in [khua̯ts] (OHG MHG kurz) 'kurz', [fua̯] (OHG fuora, MHG vuore, vuor) 'Fuhre'.

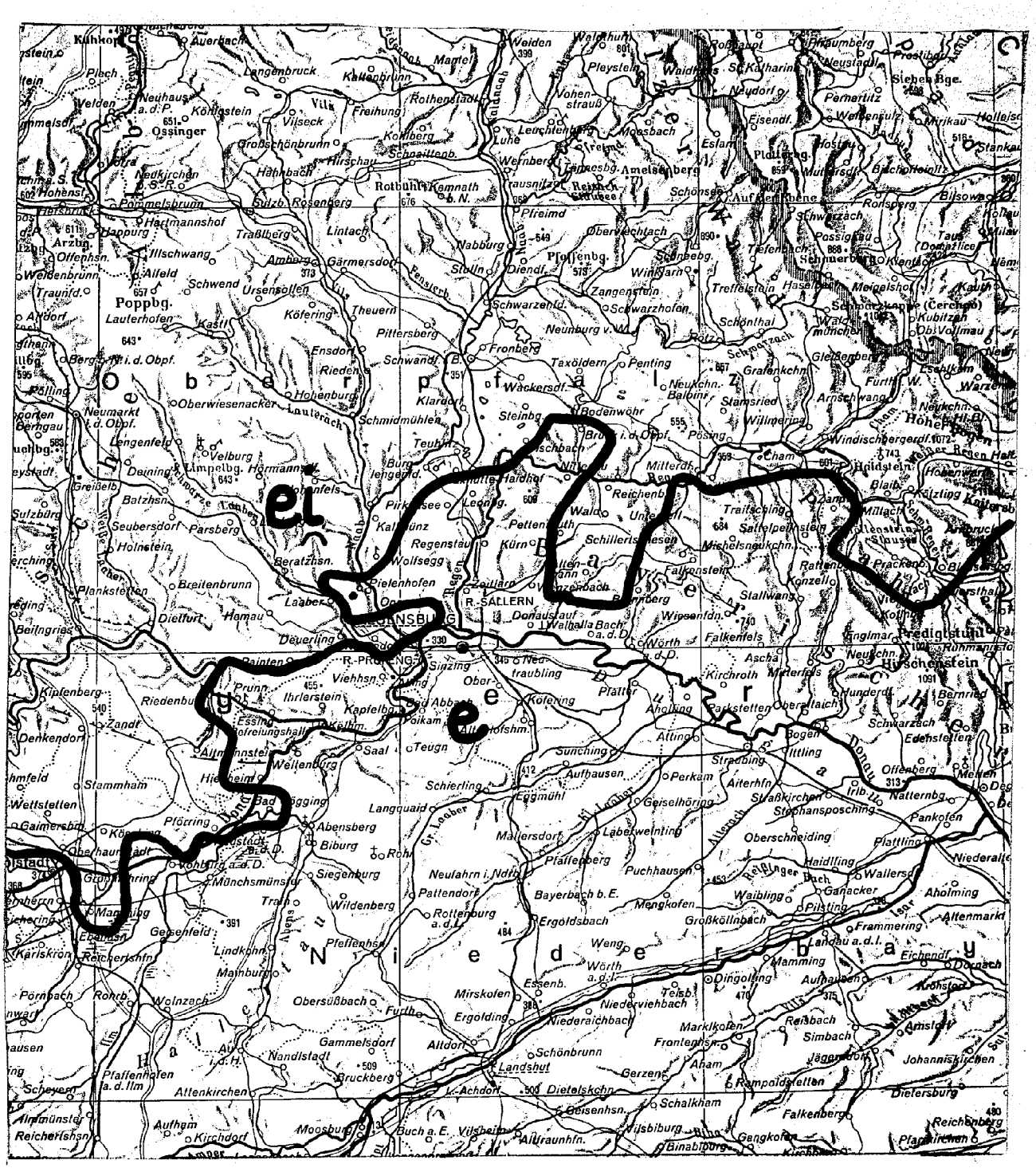
The borderline between Central Bavarian and South Bavarian (a division not observed by Wrede since he lacked the non-German data) is placed by many along the k/kch line.[99] B. Martin chooses the infinitive ending in (trink)a/(trink)n (DSA Map 54) as the dividing line.

This isogloss originates at the Hungarian border near Güssing, then, following a north-westerly course, it passes by Guntersdorf, Burgau, Hartberg, Friedberg, Vorau, Mürzzuschlag, Gloggnitz; turning west past Aflenz, Eisenerz, Wald, Rottenmann, Irdning, Gröbning, Hallstatt, Abtenau, Golling, St. Gilgen, Hallein, and Reichenhall, it meets the fest/fešt line north-east of Kufstein.[100]

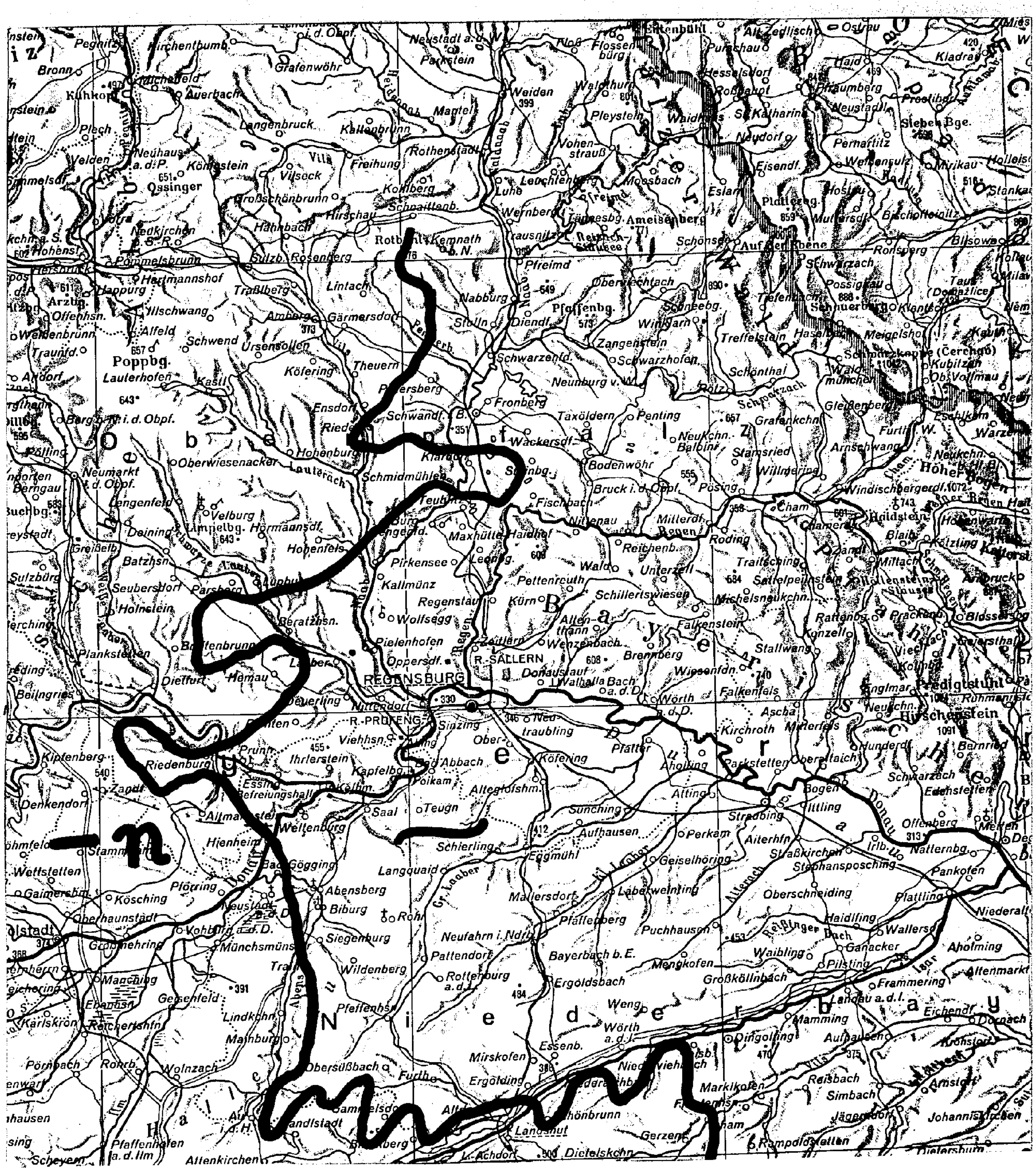
After these more general remarks on dialect classification, the more specific location of the dialect of Bergstetten may be indicated. Map 6 shows Bergstetten (the location shown is approximate; it does not show on E. Kranzmayer's original map) near the outer edge of a transition area called "nord-mittelbairisch". E. Schwarz (see note 97) points out that there is no "Nahtstelle", no clear-cut break between the older Central Bavarian and the more recently settled North Bavarian areas. There is no bundle of isoglosses to serve as a border. The transition zone "nord-mittelbairisch", then, consists of a concentration of individual isoglosses separating North Bavarian and Central Bavarian characteristics, each following a separate course. To illustrate the location of Bergstetten, its position must be examined in the context of the isoglosses which make up the transition zone (see Maps 9-18).



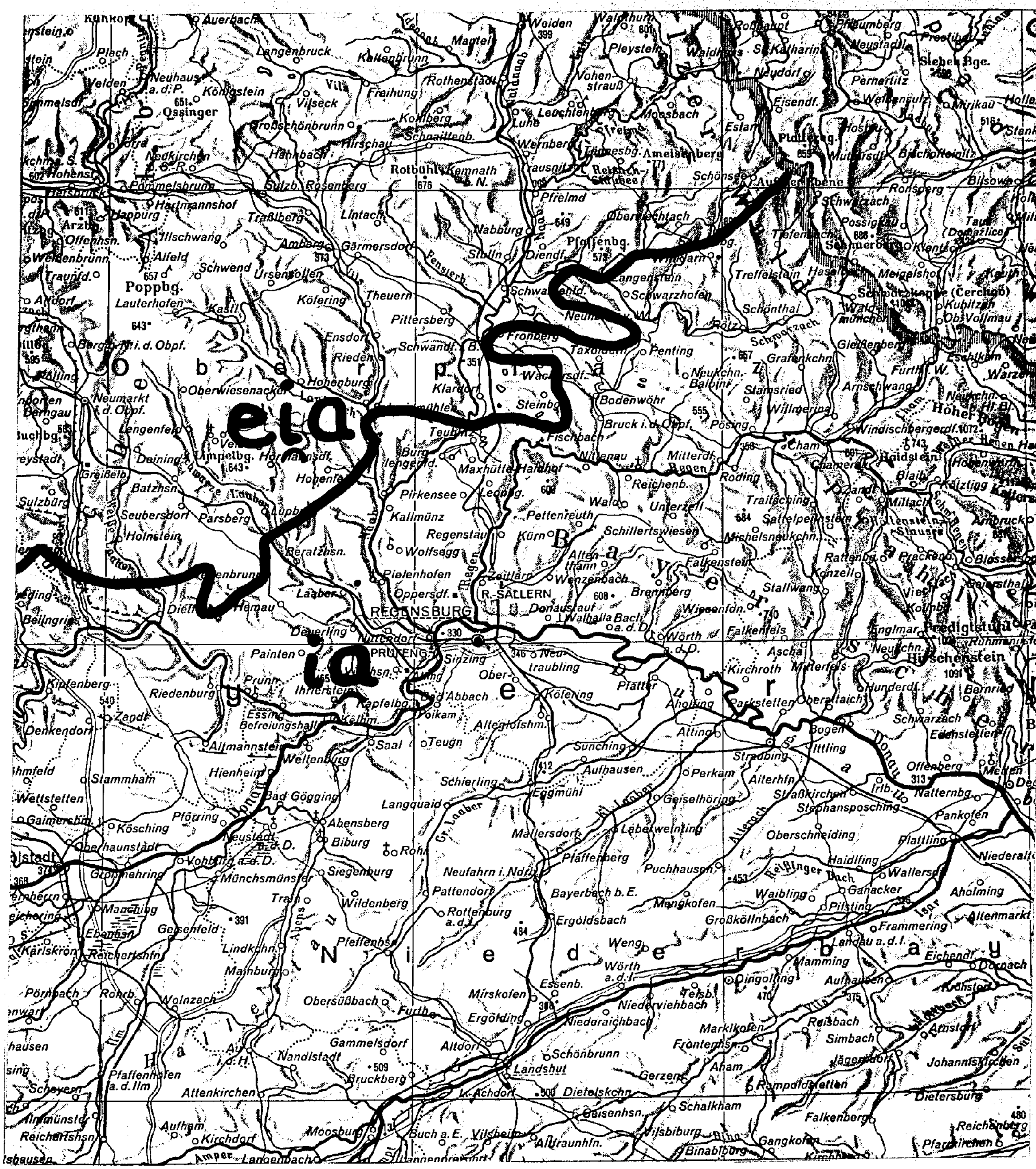

Map 9.--DSA 12 Bruder



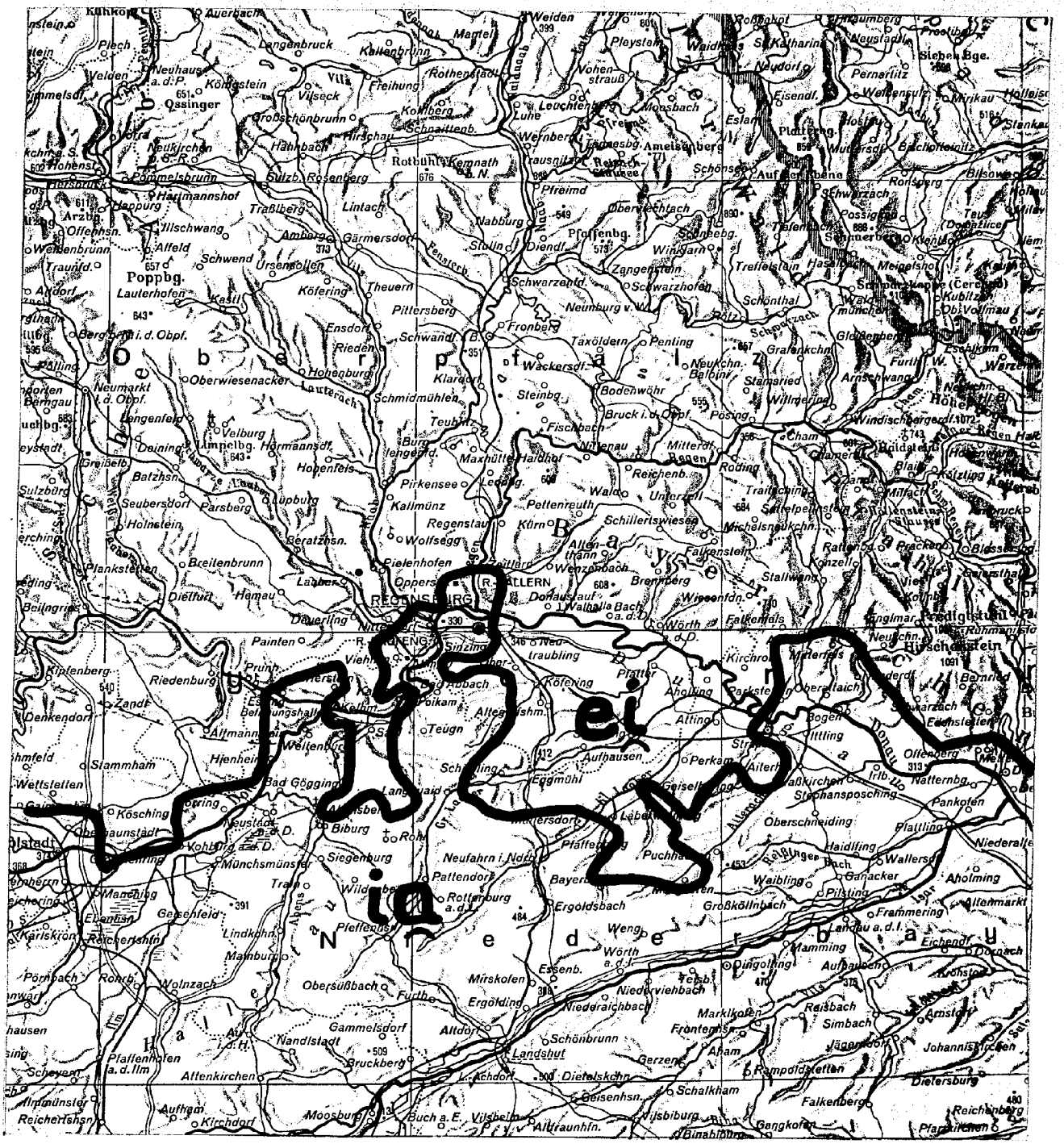

Map 10.-- DSA 33 Weh



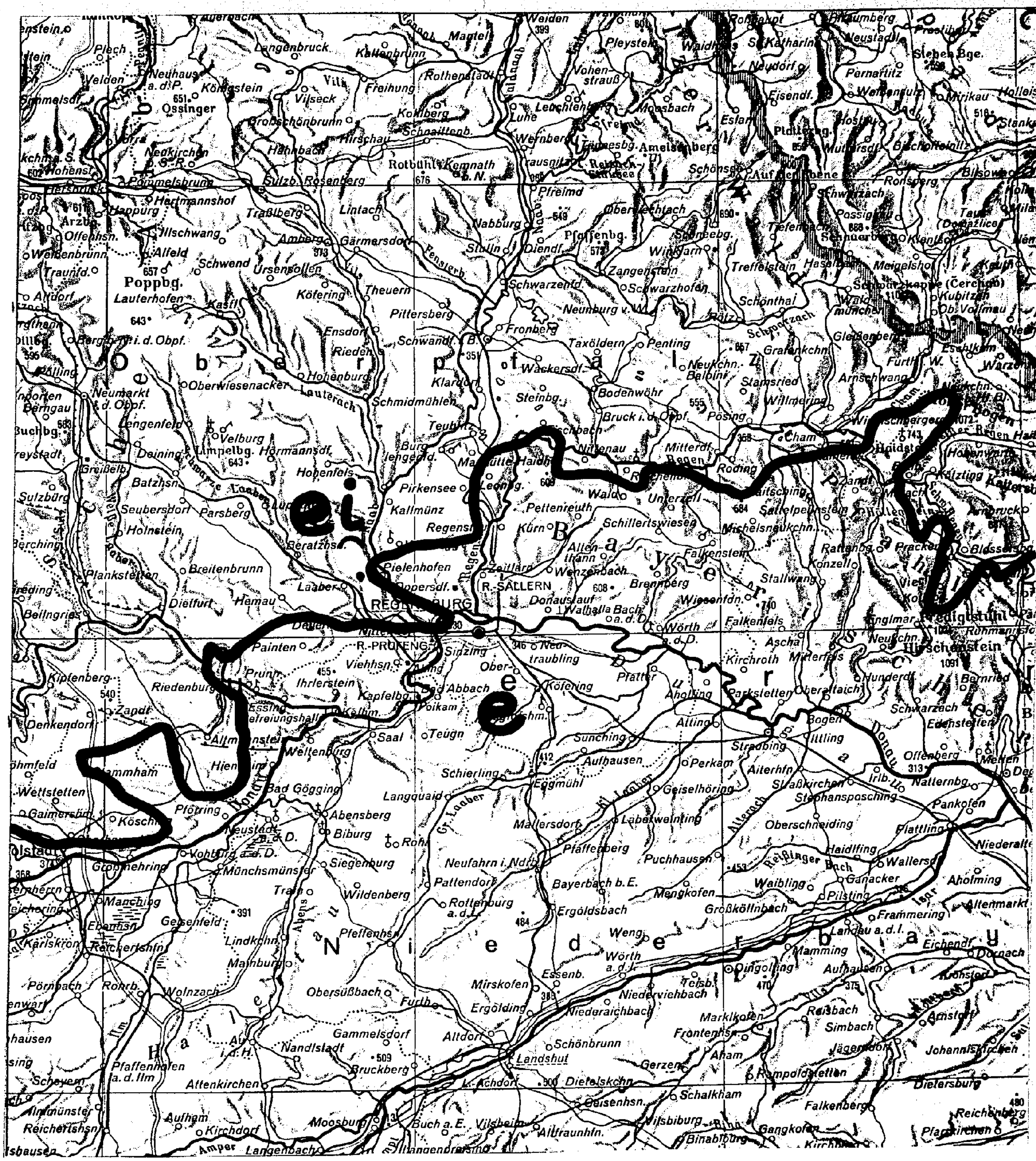

Map 11.--DSA 42 (Wies)e



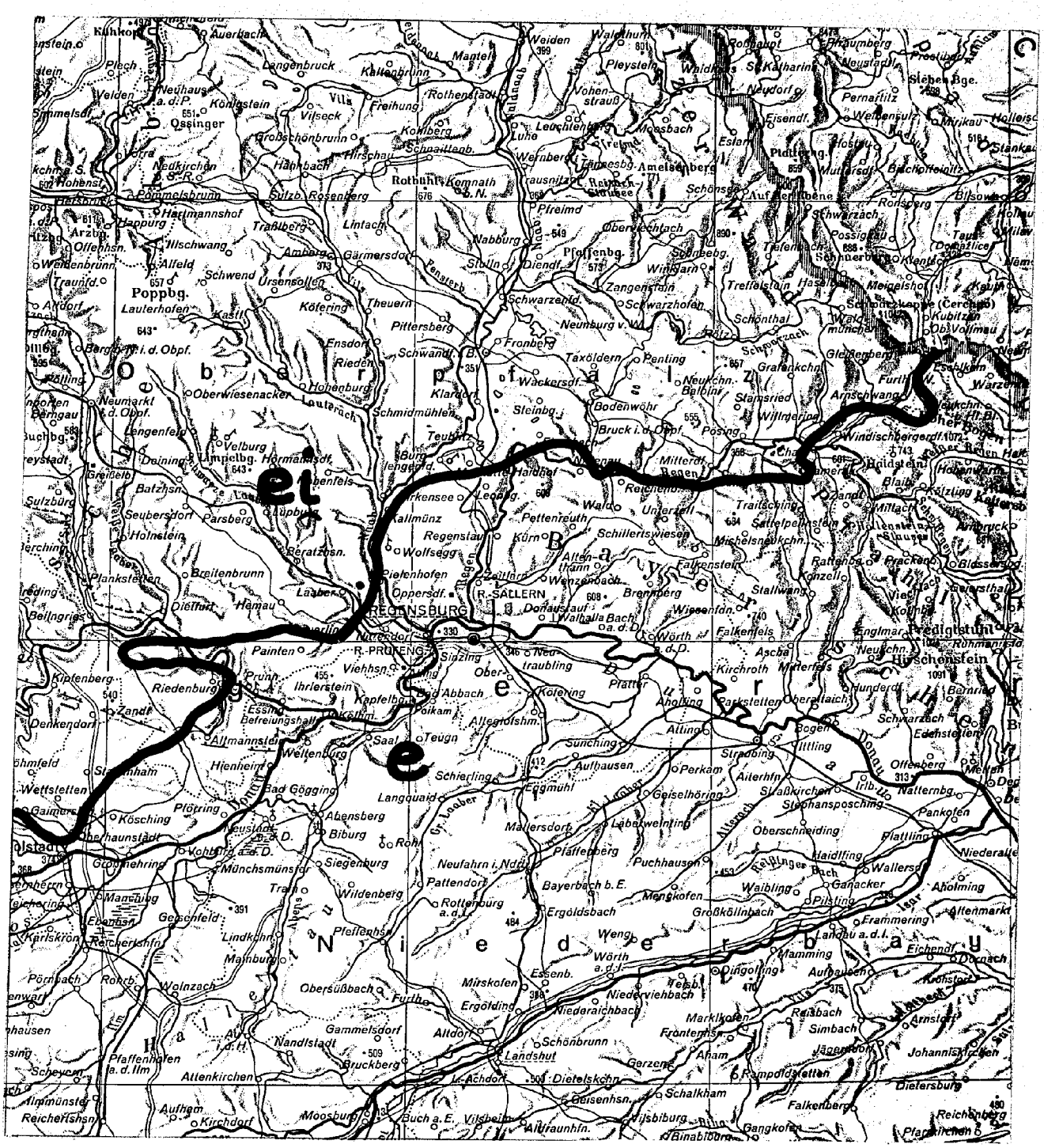

Map 12.--DSA 57 vier



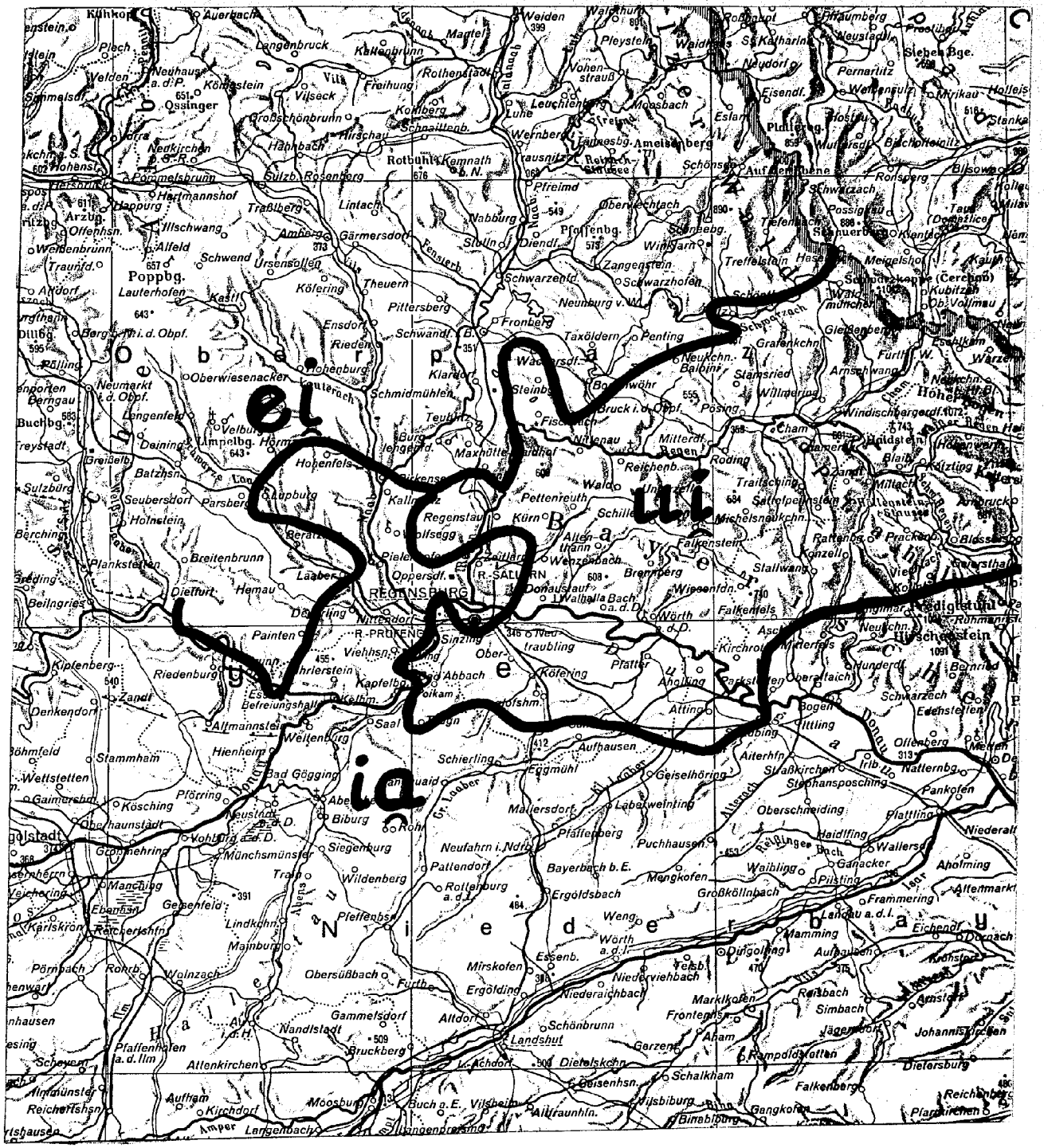

Map 13.--DSA 96 müd(e)



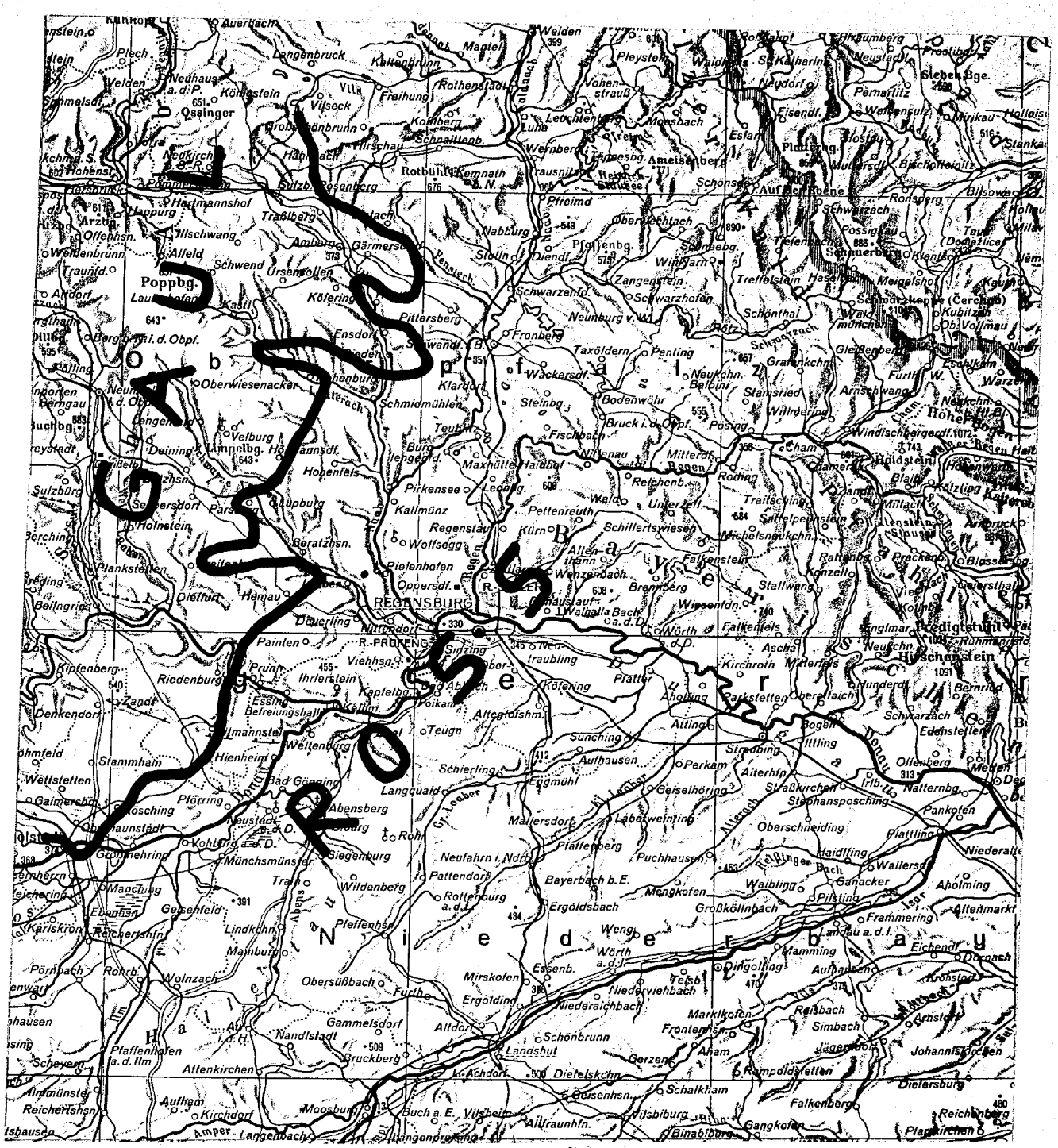

Map 14.--DSA 106 geh(en)



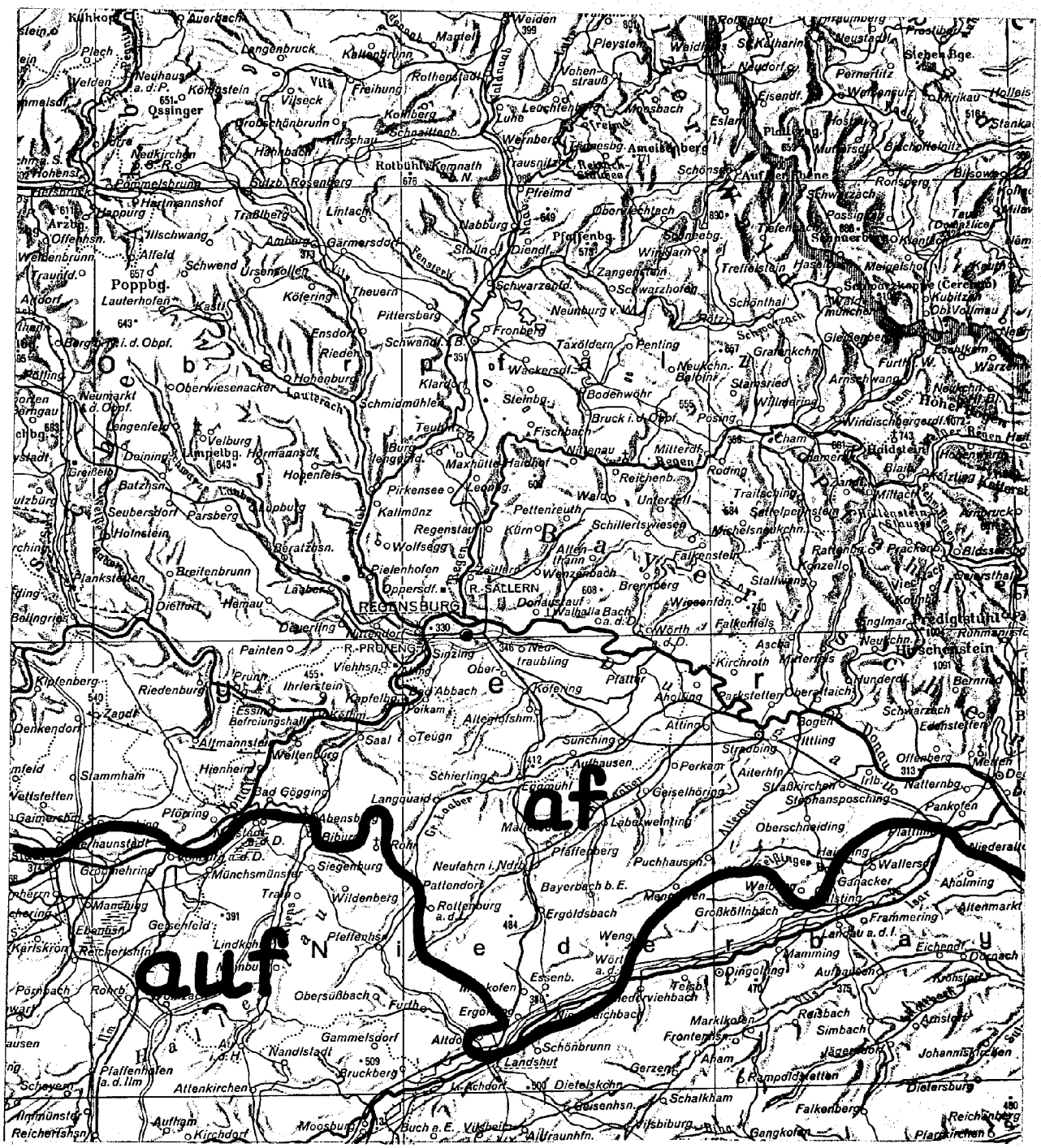

Map 15.--DSA 49 schön(e)




Map 16.--DSA 124 flieg(en)




Map 17.--DSA 8 Synonyma zu Pferd




Map 18.--DSA 128 auf

# 3.0 THE CONSONANTS

## 3.1 The Phonetic Inventory of Consonants

### 3.1.1 Phonetic chart of the consonants

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| p | | t | | | | g | k | kh |
| p: | | t: | | | | | k: | |
| w | f | s | | š | ç | | x | |
| | f: | s: | | š: | ç: | | x: | |
| m | m̥ | n | n̥ | | | | ŋ | |
| | | l | l̥ | ɬ | | | r | |
| | | | | | j | | | h |

Approximate phonetic values of the consonant sounds are indicated in this chart. More detailed descriptions of each phonetic unit are given below.

In the following, glosses are to be understood in this manner: the dialect word is followed by its etymological correspondent in modern standard German if it is in current use. If the standard German form differs markedly in meaning from the dialect word, it is placed in parentheses, e.g., [wüɬt] '(wild), ugly'. The English gloss always gives the dialect meaning of the word. If no standard German equivalent is in common use today, the

dialect entry is immediately followed by the meaning in English, e.g., [krɛi̯t] 'entryway'. If the modern German is only partially an etymological equivalent of the dialect form, the unetymological part is enclosed in parentheses: [prɛi̯ɬ̥l] 'Brut(henne), setting hen'. Stress is indicated only where it does not fall on the first syllable (for stress see 4.2.23).

3.1.2 [p] is a voiceless bilabial unaspirated stop with lenis articulation:

| | |
|---|---|
| [põə̯] | '(Bein), bone' |
| [piə̯] | 'Bier, beer' |
| [pōk] | 'Bock, ram' |
| [pātse] | 'rogue' |
| [plōts] | 'Platz, place' |
| [prɛi̯f] | 'Brief, letter' |
| [pup:m̥] | 'Puppe, doll' |
| [pål̥] | 'bald, soon' |
| [plai̯p] | 'bleibe, remain (imperat.sg.)' |
| [krāp] | 'grau, gray' |
| [krōp] | 'Grab, grave' |
| [foə̯p] | 'Farbe, color' |
| [loə̯p] | 'Laib, loaf' |
| [kɔ̄ɔ̄l̥p] | 'gelb, yellow' |
| [khōpf] | 'Kopf, head' |
| [tsōpf] | 'Zopf, braid' |
| [tōpf] | 'Topf, pot' |
| [šōpf] | 'Schopf, shock of hair' |

3.1.3 [p:] is a bilabial unaspirated stop with fortis articulation and delayed explosion:

| | |
|---|---|
| [khåp:m̥] | 'Kappe, hat' |
| [lamp:l̥] | 'Lämmlein, lamb (dimin.)' |
| [lip:m̥] | 'Lippe, lip' |

[lip:l̥] '(short for) Philipp'
[rip:m̥] 'Rippe, rib'
[sup:m̥] 'Suppe, soup'
[khep:f] 'Köpfe, heads'
[tsep:f] 'Zöpfe, braids'
[šnåp:s] 'Schnaps, liquor'
[kip:s] 'Gips, gypsum'
[hip:š] 'hübsch, pretty'
[krɛp:s] 'Krebs, cancer'
[šɛp:s] 'crooked'
[pip:] 'Pfeife, pipe'

3.1.4 [t] is a voiceless unaspirated dental stop with lenis articulation:

[tōx] 'Tag, day'
[trōx] 'Trog, trough'
[tōpf] 'Topf, pot'
[tẽnə] '(Tenne), hallway'
[tiɐ̯] 'Tür, door'
[krōt] 'gerade, straight'
[haɪ̯t] 'Häute, skins'
[pōtə] 'Bader, barber'
[mɛɪ̯t] 'müde, tired'
[kuɐ̯t] 'gut, good'
[tēt] 'confirmation sponsor (Cathol. church)'
[hōtən] 'Hadern, rag'
[khētə] 'Köter, cur'
[rāte] 'Rettich, radish'
[wĩnt] 'Wind, wind'
[khĩnt] 'Kind, child'
[štũnt] 'Stunde, hour'
[wũntə] 'Wunder, miracle'
[khōɬt] 'kalt, cold'
[ãmt] 'Abend, evening'

3.1.5 [t:] is a dental unaspirated stop with fortis articulation and delayed explosion:

| | |
|---|---|
| [fåt:ə] | 'Vater, father' |
| [met:ə] | 'Meter, meter' |
| [lɔi̯t:ə] | 'Leiter, ladder' |
| [lant:lə] | 'Ländler, Bavarian folk dance' |
| [pant:l̩] | 'Bänd(chen), ribbon (dimin.)' |
| [waɬt:lə] | 'Wäldler, one from the Bavarian Forest' |
| [plat:sl̩] | 'Plätz(chen), place (dimin.)' |
| [heə̯t:sl̩] | 'Herz(chen), heart (dimin.)' |
| [hoə̯t:] | 'hart, hard' |
| [kfret:] | 'toil (noun)' |
| [kret:] | 'geredet, spoken' |
| [koə̯t:] | 'gekartet, played cards (p.part.)' |
| [hot:] | 'hott, gee (with draft animals)' |
| [šot:] | 'Schott, prayer book (Cathol.)' |

3.1.6 [g] is a slightly voiced velar stop with lenis articulation. It is pronounced in close union with following [l̩]:

| | |
|---|---|
| [pūgl̩] | 'Buckel, back' |
| [wāgl̩] | 'Wägel(chen), cart (dimin.)' |
| [tsāgln] | 'zappeln, flounder' |
| [rōgl̩] | 'paper sack' |
| [fōgl̩] | 'Vogel, bird' |
| [khēgln] | 'kegeln, bowl' |
| [tsɛi̯gl̩] | 'Ziegel, tile (roof)' |
| [kuə̯gl̩] | 'Gurgel, throat' |
| [sūgl̩] | 'piglet' |
| [khūgl̩] | 'Kugel, bullet' |

3.1.7 [k] is a voiceless unaspirated velar stop with lenis articulation:

| | |
|---|---|
| [kīwl̩] | 'Giebel, gable' |
| [kåt:sn̩] | 'stutter' |

[keə̯m] 'yeast'
[kōwl̥] 'Gabel, fork'
[koə̯] '(gar), used up'
[kiə̯t:l̥] 'Gürtel, belt'
[rōk] 'Rock, skirt'
[pōk] 'Bock, ram'
[sōk] 'Sack, sack'
[flēk] 'Fleck, patch'
[trēk] 'Dreck, dirt'
[tɑ̃̃ŋk] 'Dank, thanks'
[kštɑ̃̃ŋk] 'Gestank, stenche'
[eŋkə] 'your'

3.1.8 [kh] is a voiceless aspirated velar stop with fortis articulation:

[khåt:sn̥] 'Katzen, cats'
[khoə̯t:n̥] 'Karten, cards'
[khof:ə] 'Koffer, suitcase'
[khōx] 'Koch, cook'
[khōtə] 'Kater, tomcat'
[khut:n̥] '(Kutte), dress'
[khɑ̃̃ɬm] 'one-year-old calf'
[khint:l̥] 'chimney'
[khaf:ə] 'kaufen, buy'
[khiə̯m] 'large carrying basket'
[khip:f] 'oval-shaped loaf of bread'
[khai̯wl̥] 'Kalb, calf (under one year)'
[kheə̯n] 'Kern, seed (fruit)'
[khoə̯n] 'Korn, rye'

3.1.9 [k:] is a voiceless unaspirated velar stop with fortis articulation and delayed explosion:

[klik:] 'Glück, happiness'
[hek:] 'Hecke, hedge'
[klok:ŋ] 'Glocken, bells'
[rek:] 'Röcke, skirts'

| | |
|---|---|
| [sek:l̩] | 'Socken, sock (dimin.)' |
| [prok:ə] | 'Brocken, chunk' |
| [prek:l̩] | 'Bröck(chen), piece (dimin.)' |
| [håk:ə] | '(Hacke), axe' |
| [hak:l̩] | 'hatchet (dimin.)' |
| [åk:ə] | 'Acker, field' |
| [tsuk:ə] | 'Zucker, sugar' |
| [wek:l̩] | 'Weck, hard roll (dimin.)' |
| [paŋk:l̩] | 'Bänk(chen), bench (dimin.)' |
| [šlaŋk:l̩] | 'Schlingel, rascal' |
| [oŋk:l̩] | 'Onkel, uncle' |
| [šuŋk:ln̩] | 'schunkeln, move back and forth' |

3.1.10 [w] is a slightly voiced bilabial fricative with a moderate degree of friction (IPA symbol [β]):

| | |
|---|---|
| [wås:ə] | 'Wasser, water' |
| [wōs] | 'was, what' |
| [wåmp:m̩] | 'belly' |
| [wātšn̩] | 'box on the ear' |
| [wīsn̩] | 'Wiese, meadow' |
| [wåk:sn̩] | 'wachsen, grow' |
| [wētə] | 'Wetter, weather' |
| [tswētə] | 'sweater' |
| [tswītə] | '(zuwider), unpleasant' |
| [šwoe̯ts] | 'schwarz, black' |
| [šēwən] | 'scheppern, clatter' |
| [kōwl̩] | 'Gabel, fork' |
| [kīwl̩] | 'Giebel, gable' |
| [štīwl̩] | 'Stüb(chen), room (dimin.)' |
| [khāwl̩] | 'Kabel, cable' |

3.1.11 [f] is a voiceless labiodental fricative with lenis articulation:

| | |
|---|---|
| [fiš:] | 'Fische, fish (pl.)' |
| [fo̯us] | 'Fuss, foot' |
| [fåt:ə] | 'Vater, father' |

| | |
|---|---|
| [fān] | 'Fäden, threads' |
| [foə̯p] | 'Farbe, color' |
| [pfīf] | 'Pfiff, whistle' |
| [ksīf] | 'inferior drink' |
| [sūf] | 'drunkenness' |
| [toə̯f] | 'Dorf, village' |
| [tɛi̯f] | 'tief, deep' |
| [sẽ̄mpft] | 'Senf, mustard' |
| [fənṹ̄mpft] | 'Vernunft, reason' |
| [ōfə] | 'Ofen, stove' |
| [kɔi̯fən] | 'geifern, slaver' |
| [ai̯fə] | 'Eifer, zeal' |
| [tai̯fl̩] | 'Teufel, devil' |

3.1.12 [f:] is a long voiceless labiodental fricative with fortis articulation:

| | |
|---|---|
| [åf:] | 'Affe, monkey' |
| [paf:] | 'baff, flabbergasted' |
| [šif:] | 'Schiffe, ships' |
| [pfif:] | 'Pfiffe, whistles' |
| [lef:l̩] | 'Löffel, spoon' |
| [šaf:ə] | 'Schäfer, shepherd' |
| [saf:ə] | 'saufen, drink in great quantity' |
| [klof:ə] | 'gelaufen, run (p.part.)' |
| [of:ə] | 'offen, open' |
| [khai̯f:l̩] | 'dealer' |
| [pfai̯f:ə] | 'pfeifen, whistle' |
| [kraf:l̩] | 'trash' |
| [khaf:ə] | 'kaufen, buy' |
| [raf:ə] | 'raufen, fight' |
| [teə̯f:ə] | 'Dörfer, villages' |

3.1.13 [s] is a voiceless dental fricative with lenis articulation:

| | |
|---|---|
| [sūn] | 'Sonne, sun' |
| [sōts] | 'Satz, grounds (coffee)' |

| | |
|---|---|
| [siç:l] | 'Sichel, sickle' |
| [sōk] | 'Sack, sack' |
| [sẽ̄ml] | 'Semmel, hard roll' |
| [maɨs] | 'Mäuse, mice' |
| [mɔu̯s] | 'Mus, mush' |
| [hōs] | 'Hase, hare' |
| [nōs] | 'nass, wet' |
| [lɔu̯s] | 'los, rid of' |
| [štɔu̯s] | 'Stoss, stack' |
| [nōsn] | 'Nase, nose' |
| [hōsn] | 'Hose, trousers' |
| [wīsn] | 'Wiese, meadow' |
| [wīsl] | 'Wiesel, weasel' |
| [mōst] | 'Most, cider' |
| [hōst] | 'hast, have (2 sg.)' |
| [wĩ̄nsln] | 'winseln, whimper' |
| [kã̄nsə] | 'Gänserich, gander' |
| [kã̄nsl] | 'Gäns(chen), gosling' |

3.1.14 [s:] is a long voiceless dental fricative with fortis articulation:

| | |
|---|---|
| [frɛs:n] | 'fressen, eat (of animals)' |
| [kɛs:n] | 'gegessen, eaten' |
| [tas:l] | 'Täss(chen), cup (dimin.)' |
| [šis:l] | 'Schüssel, bowl' |
| [pɔu̯s:n] | 'clatter' |
| [krɛɨs:n] | 'grüssen, greet' |
| [kɛɨs:n] | 'giessen, pour' |
| [strås:] | 'Strasse, street' |
| [ris:] | 'Risse, cracks' |
| [mɛs:] | 'Messe, mass' |
| [šɔu̯s:] | 'Schoss, lap' |
| [sɛɨs:] | 'süss, sweet' |
| [mås:] | 'Mass, 1 liter (beer)' |
| [plås:] | 'blass, pale' |
| [as:] | 'As, ace' |

[mes:ə] 'Messer, knife'
[pes:ə] 'besser, better'
[mis:tn̩] 'Mist(haufen), dung hill'

3.1.15 [š] is a voiceless alveopalatal fricative with lenis articulation:

[šār] 'Schere, scissors'
[šus:ən] 'schussern, play marbles'
[šɛp:s] 'crooked'
[šwār] 'schwer, heavy'
[šnē] 'Schnee, snow'
[šnɔi̯t:n̩] 'chop up branches for litter'
[šlōŋ] 'schlagen, beat'
[wātšn̩] 'box on the ear'
[rātšn̩] 'gossip'
[pai̯tšn̩] 'Peitsche, whip'
[het:šə] 'swing'
[wuə̯št] 'Wurst, sausage'
[tuə̯št] 'Durst, thirst'
[hip:š] 'hübsch, pretty'
[mēnš] 'Mensch, human being'
[fīš] 'Fisch, fish (sg.)'
[wīš] 'Wisch, slip of paper'
[pēš] 'beige, beige'
[pūš] 'Busch, bush'
[flai̯š] 'Fleisch, meat'

3.1.16 [š:] is a long voiceless alveopalatal fricative with fortis articulation:

[fiš:] 'Fische, fish (pl.)'
[kwaš:] 'Gewäsch, idle talk'
[piš:] 'Büsche, bushes'
[rai̯š:] 'Räusche, drunkenness'
[tiš:] 'Tische, tables'
[weš:] 'Wäsche, laundry'
[piš:l̩] 'Büschel, sheaf'

| | |
|---|---|
| [triš:l] | 'flail' |
| [wåš:n] | 'waschen, wash' |
| [trɛš:n] | 'dreschen, thresh' |
| [tåš:n] | 'Tasche, pocket' |
| [flåš:n] | 'Flasche, bottle' |
| [taš:l] | 'Täsch(chen), handbag (dimin.)' |
| [óɐ̯wàš:l] | 'ear' |
| [miš:n] | 'mischen, mix' |

3.1.17 [ç] is a voiceless palatal fricative with lenis articulation:[101]

| | |
|---|---|
| [wēç] | 'Weg, way' |
| [pēç] | 'Pech, pitch' |
| [lēç] | 'lege, put (imperat.sg.)' |
| [sēç] | 'Säge, saw' |
| [štīç] | 'Stich, sting' |
| [štrīç] | 'Strich, line' |
| [peɐ̯ç] | 'Berg, mountain' |
| [tsāç] | 'zäh, tough' |
| [jāçə] | 'Jäger, hunter' |
| [fɛi̯ç] | 'Vieh, cattle' |
| [šɛi̯ç] | 'scheu, shy' |
| [krɛi̯ç] | 'Krieg, war' |
| [wāçə±l] | 'Wägel(chen), cart (dimin.)' |
| [mȫ±ç] | 'Milch, milk' |
| [fō±ç] | 'folg, follow (imperat.sg.)' |
| [pō±ç] | 'Balg, skin' |

3.1.18 [ç:] is a long voiceless palatal fricative with fortis articulation:

| | |
|---|---|
| [tseç:] | 'Zeche, bill (in restaurant)' |
| [šliç:] | 'Schliche, tricks' |
| [lai̯ç:] | '(Leiche), funeral' |
| [prai̯ç:] | 'Bräuche, customs' |
| [fɛi̯ç:ə] | 'Vieh, cattle (pl.)' |
| [taç:l] | 'Dächlein, roof (dimin.)' |

[paç:l̩] 'Bächlein, brook (dimin.)'
[leç:ə] 'Löcher, holes'
[miç:l̩] 'Michael, Michael'
[pɛi̯ç:l̩] 'Büchlein, booklet'
[söɬç:] 'Selche, smokehouse'
[šaç:ən] 'barter'
[rai̯ç:ən] 'räuchern, smoke'
[siç:l̩] 'Sichel, sickle'
[wai̯ç:ə] 'weihen, bless'
[šlai̯ç:ə] 'schleichen, slink'

3.1.19 [x] is a voiceless velar fricative with lenis articulation:

[khōx] 'Koch, cook'
[pōx] 'Bach, brook'
[trōx] 'Trog, trough'
[nōxt] 'Nacht, night'
[lōx] 'Loch, hole'
[tōx] 'Tag, day'
[lūx] 'Lüge, lie'
[šɔu̯x] 'Schuh, shoe'
[knɔu̯x] 'genug, enough'
[krɔu̯x] 'Krug, pitcher'
[lå̄xə] 'Lager, warehouse'
[mōxə] 'mager, lean'
[på̯ux] 'Bauch, belly'
[lå̯ux] 'Lauge, suds'
[rå̯ux] 'Rauch, smoke'
[prå̯ux] 'Brauch, custom'
[psɔu̯x] 'Besuch, visit'
[pɔu̯x] 'Buch, book'
[tɔu̯x] 'Tuch, cloth'

3.1.20 [x:] is a long voiceless velar fricative with fortis articulation:

[såx:] '(Sache), property'

[påx:tn̥] 'pachten, lease'
[šlåx:tn̥] 'schlachten, slaughter'
[tråx:tn̥] 'Trachten, costumes'
[håx:t] 'Habicht, hawk'
[fux:tskə] 'Fünfziger, fifty mark bill'
[khox:t] 'gekocht, cooked (p.part.)'
[fux:tl̥] 'Fuchtel, rod'
[khɔu̯x:ə] 'Kuchen, cake'
[kštox:ə] 'gestochen, stung (p.part.)'
[prox:ə] 'gebrochen, broken'
[kmåx:t] 'gemacht, made (p.part.)'
[påx:ə] 'backen, bake'
[klåx:t] 'gelacht, laughed (p.part.)'
[tsux:tl̥] 'Zucht(sau), brood-sow'

3.1.21 [m] is a voiced bilabial nasal consonant:

[mu̯ət:ə] 'Mutter, mother'
[mas:l̥] 'luck'
[mes:ə] 'Messer, knife'
[mot:sn̥] 'walk slowly'
[šmo̱ts] 'Schmalz, grease'
[šmek:ə] 'schmecken, taste'
[kmɛi̯s] 'Gemüse, vegetable'
[le̱m] 'leben, live'
[lo̱m] 'loben, praise'
[a̱mt] 'Abend, evening'
[så̱m] 'Salbe, ointment'
[lamp:l̥] 'Lämmlein, lamb (dimin.)'
[wåmp:m̥] 'belly'

3.1.22 [m̥] is a syllabic voiced bilabial nasal consonant:

[lip:m̥] 'Lippe, lip'
[rip:m̥] 'Rippe, rib'
[pump:m̥] 'Pumpe, pump'
[krip:m̥] 'Krippe, crèche'
[låp:m̥] 'Lappen, rag'

[påp:m̩] 'pappen, paste'
[khåp:m̩] 'Kappe, hat'
[jop:m̩] 'Joppe, jacket'

3.1.23 [n] is a voiced dental nasal consonant:

[nai̯] 'neu, new'
[nɛi̯s:n̩] 'niessen, sneeze'
[nɔu̯t] 'Not, need'
[nōs] 'nass, wet'
[nus:] 'Nüsse, nuts'
[tə̄nə] '(Tenne), hallway'
[tant:e] 'Tante, aunt'
[ant:n̩] 'Ente, duck'
[khȫɬnə] 'Kellner, waiter'
[kwēn] 'gewesen, been'
[lān] 'Läden, shops'
[mān] 'mähen, mow'
[pōn] 'Boden, floor'
[šōn] 'Schaden, damage'

3.1.24 [n̩] is a syllabic voiced dental nasal consonant:

[hint:n̩] 'hinten, behind'
[låt:n̩] 'Latte, lath'
[fɛt:sn̩] 'Fetzen, rag'
[tai̯t:n̩] 'deuten, point'
[wet:n̩] 'wetten, bet'
[šnɔi̯t:n̩] 'chop up twigs for litter'
[mot:sn̩] 'walk slowly'
[mɛt:sn̩] 'basket (used in picking hops)'
[trat:sn̩] 'tease'
[tåš:n̩] 'Tasche, pocket'
[nōsn̩] 'Nase, nose'
[rɔu̯sn̩] 'Rose, rose'
[fəlɛi̯sn̩] 'verlieren, lose'

3.1.25 [ŋ] is a voiced velar nasal consonant:

| | |
|---|---|
| [wōŋ] | 'Wagen, waggon' |
| [sēŋ] | 'sehen, see' |
| [āfrēŋ] | 'aufregen, get excited (refl.)' |
| [wɛi̯ŋ] | 'Wiege, cradle' |
| [lɛi̯ŋ] | 'lügen, lie' |
| [rēŋ] | 'Regen, rain' |
| [lă̄ŋ] | 'lang, long' |
| [rēŋə] | 'regnen, rain' |
| [fĭ̄ŋə] | 'Finger, finger' |
| [pă̄ŋkrət] | 'rascal (of children)' |

3.1.26 [ŋ̩] is a syllabic voiced velar nasal consonant:

| | |
|---|---|
| [ek:ŋ̩] | 'Ecken, corners' |
| [hek:ŋ̩] | 'Hecken, hedges' |
| [tek:ŋ̩] | 'Decken, blankets' |
| [lok:ŋ̩] | 'Locke, curl' |
| [klok:ŋ̩] | 'Glocken, bells' |

3.1.27 [l] is a voiced post-dental lateral consonant:

| | |
|---|---|
| [leš:n̩] | 'löschen, extinguish' |
| [lɔu̯s] | 'Los, lot' |
| [låx:ə] | 'lachen, laugh' |
| [klōs] | 'Glas, glass' |
| [šlōs] | 'Schloss, lock' |
| [pleɐ̯n] | 'plärren, cry' |
| [plōx] | 'Plage, hardship' |
| [klåt:sn̩] | 'Glatze, bald head' |
| [tslaf:ə] | 'zerlaufen, melt' |
| [pflånt:sn̩] | 'Pflanze, plant' |
| [pflɔu̯x] | 'Pflug, plough' |

3.1.28 [l̩] is a syllabic voiced post-dental lateral consonant:

| | |
|---|---|
| [sek:l̩] | 'Socken, sock (dimin.)' |
| [wāgl̩] | 'Wägel(chen), cart (dimin.)' |
| [pak:l̩] | 'Päck(chen), parcel' |
| [siç:l̩] | 'Sichel, sickle' |
| [šɛi̯gln] | 'schielen, squint' |
| [špɛi̯gl̩] | 'Spiegel, mirror' |
| [krɛi̯gl̩] | 'Krüglein, pitcher (dimin.)' |
| [flaš:l̩] | 'Fläsch(chen), bottle (dimin.)' |
| [plāɬl̩] | 'Blättlein, leaflet' |
| [ōɬl̩] | 'liquid manure' |
| [štōɬl̩] | 'Stadel, barn' |
| [wāɬl̩] | 'Wade, calf (of leg)' |

3.1.29 [ɬ] is a voiced alveolar lateral consonant with slight retroflexion. Retroflexion is especially apparent after rounded vowels:

| | |
|---|---|
| [sōɬts] | 'Salz, salt' |
| [fōɬŋ] | 'folgen, obey' |
| [pa̋ɬ] | 'Ball, ball' |
| [mőɬç] | 'Milch, milk' |
| [štö̋ɬ] | 'Stuhl, chair' |
| [mö̋ɬ] | 'Mehl, flour' |
| [šnö̋ɬ] | 'schnell, fast' |
| [mü̋ɬ] | 'Mühle, mill' |
| [fü̋ɬ] | 'viel, much' |
| [hāɬ] | 'slippery' |
| [štāɬ] | 'steil, steep' |
| [fa̋ɬ] | 'feil, for sale' |
| [ta̋ɬ] | 'Teil, part' |
| [ša̋ɬn] | '(Schale), cup' |

3.1.30 [r] is a voiced uvular trill:

| | |
|---|---|
| [rɔu̯t] | 'rot, red' |
| [rōst] | 'Rost, rust' |
| [res:ə] | 'Rösser, horses' |
| [rai̯wə] | 'Räuber, robber' |
| [rōgl̥] | 'paper sack' |
| [pfoe̯rə] | 'Pfarrer, priest' |
| [fie̯re] | 'vier Uhr, 4 o'clock' |
| [šwār] | 'schwer, heavy' |
| [rār] | 'rar, rare' |
| [šār] | 'Schere, scissors' |
| [lār] | 'leer, empty' |

3.1.31 [j] is a voiced palatal semivowel with little friction:

| | |
|---|---|
| [jōŋ] | 'jagen, hunt' |
| [jāxə] | 'Jäger, hunter' |
| [joe̯] | 'Jahr, year' |
| [jā̆] | 'ja, yes' |
| [jētə] | 'jeder, everyone' |
| [juk:s] | 'Jux, joke' |
| [jes:əs] | '(Jesus), heavens above' |
| [jak:ŋ̩] | 'Jacke, jacket' |
| [jūhū] | 'juhe, hurrah' |

3.1.32 [h] is a voiceless glottal fricative with cavity friction:

| | |
|---|---|
| [hɛ̃i̯nt] | 'heu(te), today' |
| [hōm] | 'haben, have' |
| [hie̯s] | 'Hirse, millet' |
| [hoe̯s] | 'heiss, hot' |
| [hå̆x:t] | 'Habicht, hawk' |
| [hät:s] | 'magpie' |
| [hōsn̥] | 'Hasen, hares' |
| [jūhū] | 'juhe, hurrah' |
| [ūhū] | 'Uhu, eagle-owl' |
| [ɔ̃hå̆] | 'whoa' |

## 3.2 The Consonant Phonemes[102]

3.2.1 Chart of consonant phonemes (cf. chart 3.1.1)

a) obstruents

| | | | | |
|---|---|---|---|---|
| /p/ | | /t/ | | /k/ |
| /pp/ | | /tt/ | | /kk/ |
| | /f/ | /s/ | /š/ | /x/ |
| | /ff/ | /ss/ | /šš/ | /xx/ |

b) resonants

| | | | | |
|---|---|---|---|---|
| /w/ | /l/ | /j/ | | /r/ |
| /m/ | /n/ | | /ŋ/ | |

3.2.2 The central issue in the phonemic analysis of the dialect concerns the nature of the contrast between obstruents of like place and manner of articulation, e.g., /p/ ≠ /pp/, /f/ ≠ /ff/, etc. Closely linked with this question is the distribution of short and long vowels in relation to following obstruents. In the following list of minimal and near-minimal pairs these phonetic differences exist between examples in the left-hand column and those in the right-hand column:

a) The non-initial obstruents on the left are uttered with less force (lenis) than those on the right (fortis).

b) The obstruents on the left are of shorter duration (stops have delayed explosion when "long") than those on the right. (The phonetic transcription uses this feature as the distinguishing mark.)

c) The non-initial obstruents on the left are preceded by long vowels; those on the right are preceded by short vowels.[103]

| | | | |
|---|---|---|---|
| [tsōpf] | 'Zopf, braid' | [tsep:f] | 'Zöpfe, braids' |
| [hōt] | 'hat, has' | [hot:] | 'hott, gee (to horses)' |
| [rōk] | 'Rock, skirt' | [rek:] | 'Röcke, skirts' |
| [pfīf] | 'Pfiff, whistle' | [pfif:] | 'Pfiffe, whistles' |
| [wīsn] | 'Wiese, meadow' | [wis:n] | 'wissen, know' |
| [fīš] | 'Fisch, fish' | [fiš:] | 'Fische, fish (pl.)' |
| [štīç] | 'Stich, sting' | [štiç:] | 'Stiche, stings' |

It can be seen from these examples that vowel length, obstruent length, and force of obstruent articulation are co-occurring features which are mutually dependent. It is the task of phonemics to reduce phonetic data to minimally distinctive units by eliminating redundant features. Only one of the three features present in the above examples can be singled out as carrying phonemic contrast. The other two have to be relegated to the allophonic level. The choice lies between the following analyses:

a) Vocalic length is distinctive and conditions length and degree of force in the following obstruents: short vowels are followed by long fortis obstruents; long vowels are followed by short lenis obstruents.

This analysis is rejected for two reasons:

Vowel length is never contrastive except under the conditions stated. Vowels show no short ≠ long opposition in final position, before resonant + pause, or resonant + vowel. (See 4.2.2 for distribution of long and short vowel allophones.)

Anton Pfalz made a revealing observation on the borrowing process of standard German forms into Central Bavarian, which also applies to North Bavarian: "Bei der Realisierung schriftsprachlicher Wörter wird die Vokalquantität fast niemals beibehalten."[104] Generally, standard German voiceless stops are rendered by the nearest dialect equivalent, long fortis stops. If a long vowel precedes the stop in the standard form, it will appear as a short vowel in the dialect which does not permit the sequence $\bar{V}$ + long stop. Standard German $\bar{V}$ + voiceless stop is thus rendered as V + long fortis stop, e.g., [-$\bar{e}$t-] in St. G Meter is rendered as [-et:-] in the dialect form [met:ə]; St. G Vater occurs as [fåt:ə] (used beside the expected dialect form [f$\bar{o}$tə]); St. G Pater is changed to [pat:ə]. It is significant that the native speakers of Bavarian dialects appear to subordinate vowel length to stop contrasts in rendering standard German vocabulary. In a sense, they have indicated that a distinctive opposition resides not in the vowels but in the obstruents following them. If vowel length is merely allophonic, as the above argument suggests, it must be determined which of the two phonetically distinctive consonant features is to be regarded as phonemic.

b) The phonemic opposition is to be seen in the fortis ≠ lenis feature of the obstruent. The quantity of the preceding vowel is conditioned by the following fortis vs. lenis obstruent.

This solution is undesirable because in consonant clusters the fortis ≠ lenis opposition is very weak if not completely suspended. Consonant length, on the other hand, is always present as a distinctive feature wherever the opposition can occur.

c) Consonant length, co-occurring with degree of force in most positions, is to be regarded as distinctive. Vowel quantity is determined by following long vs. short consonants. This analysis is proposed here.[105]

The fact that analysis c) would be found to be most acceptable is foreshadowed in the use of the phonetic symbols [p] vs. [p:], [t] vs. [t:] etc. Others have used [b] vs. [p], [d] vs. [t] (H. Kurath, H. Kufner) and /b/ vs. /bb/, /d/ v.s /dd/ (H. Kufner). A close phonetic transcription would indicate the absence of voicing in all obstruents, the presence of fortis and lenis articulation and consonant length. The phonetic transcription used here expresses the absence of voicing by using voiceless symbols only. The presence of consonant length is indicated by the length mark. The feature of force of articulation (fortis vs. lenis) has been eliminated in view of the later phonemic analysis and for the sake of convenience.

3.2.3 The obstruent phoneme /p/ occurs initially, medially before /f/, and finally. Initially, it never contrasts with /pp/.

| | | |
|---|---|---|
| [pāsl̥] | /pasl/ | 'Base, cousin (dimin.)' |
| [piɐ̯n] | /pian/ | 'Birne, pear' |
| [tōpf] | /topf/ | 'Topf, pot' |

| | | |
|---|---|---|
| [šōpf] | /šopf/ | 'Schopf, shock (of hair)' |
| [krōp] | /krop/ | 'Grab, grave' |
| [foə̯p] | /foap/ | 'Farbe, color' |

Contrasts between /p/ and the other obstruent phonemes:

| | | | |
|---|---|---|---|
| /p/ ≠ /pp/ | [tōpf] | /topf/ | 'Topf, pot' |
| | [tep:f] | /teppf/ | 'Töpfe, pots' |
| /p/ ≠ /t/ | [krōp] | /krop/ | 'Grab, grave' |
| | [krōt] | /krot/ | 'gerade, straight' |
| /p/ ≠ /tt/ | [khoə̯p] | /kkoap/ | 'Korb, basket' |
| | [khoə̯t:] | /kkoatt/ | 'gekartet, played cards (p.part.)' |
| /p/ ≠ /k/ | [poə̯n] | /poan/ | 'manger' |
| | [koə̯n] | /koan/ | 'Garn, yarn' |
| /p/ ≠ /kk/ | [miə̯p] | /miap/ | 'mürbe, mellow' |
| | [miə̯k: āf] | /miakk af/ | 'merk auf, pay attention' |
| /p/ ≠ /f/ | [piə̯] | /pia/ | 'Bier, beer' |
| | [fiə̯] | /fia/ | 'vier, four' |
| /p/ ≠ /ff/ | [raip] | /raip/ | 'reib, rub (imperat.sg.)' |
| | [raif:] | /raiff/ | 'reif, ripe' |
| /p/ ≠ /s/ | [pūgl̥] | /pukl/ | 'Buckel, back' |
| | [sūgl̥] | /sukl/ | 'piglet' |
| /p/ ≠ /ss/ | [krāp] | /krap/ | 'grau, grey' |
| | [kras:] | /krass/ | '(krass), bad' |
| /p/ ≠ /š/ | [pēsn̥] | /pesn/ | 'Besen, broom' |
| | [šēsn̥] | /šesn/ | 'jalopy' |
| /p/ ≠ /šš/ | [raip] | /raip/ | 'reib, rub (imperat.sg.)' |
| | [raiš:] | /raišš/ | 'Räusche, drinking bouts' |
| /p/ ≠ /x/ | [låup] | /låup/ | 'Laub, leaves' |
| | [låux] | /låux/ | 'Lauge, suds' |
| /p/ ≠ /xx/ | [plaip] | /plaip/ | 'bleib, stay (imperat.sg.)' |
| | [plaiç:ə] | /plaixxa/ | 'bleichen, bleach' |

3.2.4 The obstruent phoneme /pp/ occurs finally and medially.

| | | |
|---|---|---|
| [pip:] | /pipp/ | 'pipe' |
| [påp:] | /påpp/ | 'Papp, paste' |
| [rip:m̥] | /rippm/ | 'Rippe, rib' |
| [lamp:l̥] | /lamppl/ | 'Lämmlein, lamb (dimin.)' |

Contrasts with the other obstruent phonemes:

| | | | |
|---|---|---|---|
| /pp/ ≠ /p/ | see 3.2.3 above. | | |
| /pp/ ≠ /t/ | [pop:] | /popp/ | 'Bob, bobsled' |
| | [p$\bar{o}$t] | /pot/ | 'game of cards' |
| /pp/ ≠ /tt/ | [påp:] | /påpp/ | 'Papp, paste' |
| | [påt:] | /pått/ | 'gebadet, bathed (p.part.)' |
| /pp/ ≠ /k/ | [pop:] | /popp/ | 'Bob, bobsled' |
| | [p$\bar{o}$k] | /pok/ | 'Bock, ram' |
| /pp/ ≠ /kk/ | [påp:] | /påpp/ | 'Papp, paste' |
| | [påk:] | /påkk/ | 'pack, seize (imperat.sg.)' |
| /pp/ ≠ /f/ | [top:l̥t] | /topplt/ | 'doppelt, double' |
| | [t$\bar{o}$fl̥] | /tofl/ | 'Tafel, bar (chocolate)' |
| /pp/ ≠ /ff/ | [ha$\hat{i}$p:l̥] | /haippl/ | '(Haupt), head (lettuce; dimin.)' |
| | [ha$\hat{i}$f:l̥] | /haiffl/ | 'Häuflein, pile (dimin.)' |
| /pp/ ≠ /s/ | [pip:] | /pipp/ | 'pipe' |
| | [p$\bar{i}$s] | /pis/ | 'Biss, bite' |
| /pp/ ≠ /ss/ | [påp:] | /påpp/ | 'Papp, paste' |
| | [pås:] | /påss/ | 'Bass, bass' |
| /pp/ ≠ /š/ | [pup:m̥] | /puppm/ | 'Puppe, doll' |
| | [p$\bar{u}$š] | /puš/ | 'Busch, bush' |
| /pp/ ≠ /šš/ | [pip:] | /pipp/ | 'pipe' |
| | [piš:] | /pišš/ | 'Büsche, bushes' |
| /pp/ ≠ /x/ | [pop:] | /popp/ | 'Bob, bobsled' |
| | [p$\bar{o}$x] | /pox/ | 'Bach, brook' |

| | | | |
|---|---|---|---|
| /pp/ ≠ /xx/ | [khåp:t] | /kkåppt/ | 'gehabt, had (p.part.)' |
| | [håx:t] | /xåxxt/ | 'Habicht, hawk' |

3.2.5 The obstruent phoneme /t/ occurs initially, medially and finally.

| | | |
|---|---|---|
| [taiˆfl̩] | /taifl/ | 'Teufel, devil' |
| [taiˆtš] | /taitš/ | 'deutsch, German' |
| [wētə] | /weta/ | 'Wetter, weather' |
| [lētə] | /leta/ | 'Leder, leather' |
| [tāt] | /tat/ | 'täte, would do (1,3 sg.)' |
| [māt] | /mat/ | 'mäht, mows' |

Contrasts with the other obstruent phonemes:

/t/ ≠ /p/ see 3.2.3 above.

/t/ ≠ /pp/ see 3.2.4 above.

| | | | |
|---|---|---|---|
| /t/ ≠ /tt/ | [wāt] | /wat/ | 'weht, blows' |
| | [wat:] | /watt/ | 'Watte, cotton' |
| /t/ ≠ /k/ | [toeˆn] | /toan/ | 'Dorn, thorn' |
| | [koeˆn] | /koan/ | 'Garn, yarn' |
| /t/ ≠ /kk/ | [tēt] | /tet/ | 'confirmation sponsor' |
| | [tek:] | /tekk/ | 'Decke, blanket' |
| /t/ ≠ /f/ | [tīš] | /tiš/ | 'Tisch, table' |
| | [fīš] | /fiš/ | 'Fisch, fish' |
| /t/ ≠ /ff/ | [khōtə] | /kkota/ | 'Kater, tomcat' |
| | [khof:ə] | /kkoffa/ | 'Koffer, suitcase' |
| /t/ ≠ /s/ | [tōx] | /tox/ | 'Tag, day' |
| | [sōx] | /sox/ | 'sag, say (imperat.sg.)' |
| /t/ ≠ /ss/ | [tāt] | /tat/ | 'täte, would do (1,3 sg.)' |
| | [tas:] | /tass/ | 'Tasse, cup' |
| /t/ ≠ /š/ | [tieˆm] | /tiam/ | 'Türme, towers' |
| | [šieˆm] | /šiam/ | 'Schirm, umbrella' |
| /t/ ≠ /šš/ | [kwāt] | /kwat/ | 'geweht, blown' |
| | [kwaš:] | /kwašš/ | 'Gewäsch, idle talk' |

| | | | |
|---|---|---|---|
| /t/ ≠ /x/ | [rɔu̯t] | /rɔut/ | 'rot, red' |
| | [rɔu̯x] | /rɔux/ | 'roh, raw' |
| /t/ ≠ /xx/ | [l$\bar{e}$tə] | /leta/ | 'Leder, leather' |
| | [leç:ə] | /lexxa/ | 'Löcher, holes' |

3.2.6 The obstruent phoneme /tt/ occurs medially and finally. There is no contrast /t/ ≠ /tt/ in initial position.

| | | |
|---|---|---|
| [rå̄t:s] | /råtts/ | 'Ratte, rat' |
| [lant:lə] | /lanttla/ | 'Ländler, Bavarian folk dance' |
| [pet:] | /pett/ | 'Bett, bed' |
| [kret:] | /krett/ | 'geredet, talked (p.part.)' |

Contrasts with the other obstruent phonemes are:

/tt/ ≠ /p/ see 3.2.3 above.

/tt/ ≠ /pp/ see 3.2.4 above.

/tt/ ≠ /t/ see 3.2.5 above.

| | | | |
|---|---|---|---|
| /tt/ ≠ /k/ | [trunt:] | /truntt/ | 'drunten, down below' |
| | [tr$\tilde{\bar{u}}$ŋk] | /trũŋk/ | 'Trunk, drink' |
| /tt/ ≠ /kk/ | [ret:] | /rett/ | 'redet, talks' |
| | [rek:] | /rekk/ | 'Röcke, skirts' |
| /tt/ ≠ /f/ | [wi̯ə̯t:] | /wiatt/ | 'Wirt, innkeeper' |
| | [wi̯ə̯f] | /wiaf/ | 'wirf, throw (imperat. sg.)' |
| /tt/ ≠ /ff/ | [we̯ə̯t:ə] | /weatta/ | 'Wörter, words' |
| | [we̯ə̯f:ə] | /weaffa/ | 'werfen, throw' |
| /tt/ ≠ /s/ | [khit:] | /kkitt/ | 'Kitt, putty' |
| | [kh$\bar{\imath}$s] | /kkis/ | 'Kies, gravel' |
| /tt/ ≠ /ss/ | [måt:] | /mått/ | 'matt, fatigued' |
| | [mås:] | /måss/ | 'Mass, 1 liter (beer)' |
| /tt/ ≠ /š/ | [pet:] | /pett/ | 'Bett, bed' |
| | [p$\bar{e}$š] | /peš/ | 'beige, beige' |

| | | | |
|---|---|---|---|
| /tt/ ≠ /šš/ | [wet:] | /wett/ | 'Wette, wager' |
| | [weš:] | /wešš/ | 'Wäsche, laundry' |
| /tt/ ≠ /x/ | [pet:] | /pett/ | 'Bett, bed' |
| | [pēç] | /pex/ | 'Pech, pitch' |
| /tt/ ≠ /xx/ | [tat:ə] | /tatta/ | 'daddy' |
| | [tax:ə] | /taxxa/ | 'Dächer, roofs' |

3.2.7 The obstruent phoneme /k/ has the allophones [k] and [g]. [g] occurs before [l̥]:

| | | |
|---|---|---|
| [wāgl̥] | /wakl/ | 'Wägel(chen), cart (dimin.)' |

/k/ occurs initially, medially, and finally:

| | | |
|---|---|---|
| [kōwl̥] | /kowl/ | 'Gabel, fork' |
| [kåt:sn̥] | /kåttsn/ | 'stutter' |
| [eŋkə] | /eŋka/ | 'your' |
| [sōk] | /sok/ | 'Sack, sack' |
| [trēk] | /trek/ | 'Dreck, dirt' |

Contrasts with the other obstruent phonemes:

/k/ ≠ /p/ see 3.2.3 above.

/k/ ≠ /pp/ see 3.2.4 above.

/k/ ≠ /t/ see 3.2.5 above.

/k/ ≠ /tt/ see 3.2.6 above.

| | | | |
|---|---|---|---|
| /k/ ≠ /kk/ | [pōk] | /pok/ | 'Bock, ram' |
| | [pek:] | /pekk/ | 'Böcke, rams' |
| /k/ ≠ /f/ | [trēk] | /trek/ | 'Dreck, dirt' |
| | [trēf] | /tref/ | 'Treff, blow' |
| /k/ ≠ /ff/ | [štōk] | /štok/ | 'Stock, story (of house)' |
| | [štof:] | /štoff/ | 'Stoff, cloth' |
| /k/ ≠ /s/ | [kɛi̯s:n̥] | /kɛissn/ | 'giessen, pour' |
| | [sɛi̯s:n̥] | /sɛissn/ | 'süssen, sweeten' |
| /k/ ≠ /ss/ | [sōk] | /sok/ | 'Sack, sack' |
| | [sos:] | /soss/ | 'Sosse, sauce' |

| | | | |
|---|---|---|---|
| /k/ ≠ /š/ | [koo̯n] | /koan/ | 'Garn, yarn' |
| | [šoo̯n] | /šoan/ | 'scharren, scratch' |
| /k/ ≠ /šš/ | [flēk] | /flek/ | 'Fleck, patch' |
| | [feš:] | /fešš/ | 'fesch, smart(-looking)' |
| /k/ ≠ /x/ | [pōk] | /pok/ | 'Bock, ram' |
| | [pōx] | /pox/ | 'Bach, brook' |
| /k/ ≠ /xx/ | [štrīk] | /štrik/ | 'Strick, rope' |
| | [štriç:] | /štrixx/ | 'Striche, lines' |

3.2.8 The obstruent phoneme /kk/ occurs in initial, medial, and final position. It has the allophones [kh] and [k:]. [kh] occurs only initially before vowel. [k:] occurs medially and finally. Both allophones possess fortis articulation. Their distribution is completely complementary. [kh] occurs initially before vowel (except in a few loans from the Standard language, e.g., [mùsikhánt:] 'Musikant, bandsman'):

| | | |
|---|---|---|
| [khåt:s] | /kkåtts/ | 'Katze, cat' |
| [khoo̯n] | /kkoan/ | 'Korn, rye' |

[k:] occurs elsewhere:

| | | |
|---|---|---|
| [ak:ə] | /akka/ | 'Äcker, fields' |
| [hak:l̩] | /xakkl/ | '(Hacke), hatchet' |
| [štrik:] | /štrikk/ | 'Stricke, ropes' |

Contrasts between /kk/ and the other obstruent phonemes:

/kk/ ≠ /p/ see 3.2.3 above.

/kk/ ≠ /pp/ see 3.2.4 above.

/kk/ ≠ /t/ see 3.2.5 above.

/kk/ ≠ /tt/ see 3.2.6 above.

/kk/ ≠ /k/ see 3.2.7 above.

| | | | |
|---|---|---|---|
| /kk/ ≠ /f/ | [hok:ə] | /xokka/ | '(hocken), sit' |
| | [hōfə] | /xofa/ | 'Hafen, pot' |
| /kk/ ≠ /ff/ | [rak:ən] | /rakkan/ | '(ab)rackern, drudge' |
| | [raf:ə] | /raffa/ | 'raufen, fight' |
| /kk/ ≠ /s/ | [tek:] | /tekk/ | 'Decke, blanket' |
| | [tēs] | /tes/ | 'dieses, this' |
| /kk/ ≠ /ss/ | [mak:l̥] | /makkl/ | 'Mark, mark (dimin.)' |
| | [mas:l̥] | /massl/ | 'luck' |
| /kk/ ≠ /š/ | [pek:] | /pekk/ | 'Böcke, rams' |
| | [pēš] | /peš/ | 'beige, beige' |
| /kk/ ≠ /šš/ | [tak:l̥] | /takkl/ | 'Dackel, dachshund' |
| | [taš:l̥] | /tašš1/ | 'Täschlein, pocket (dimin.)' |
| /kk/ ≠ /x/ | [hek:] | /xekk/ | 'Hecke, hedge' |
| | [hēç] | /xex/ | 'Honig, honey' |
| /kk/ ≠ /xx/ | [štrik:] | /štrikk/ | 'Stricke, ropes' |
| | [štriç:] | /štrixx/ | 'Striche, lines' |

3.2.9 The obstruent phoneme /f/ occurs initially, medially, and finally:

| | | |
|---|---|---|
| [fɔu̯tə] | /fɔuta/ | 'Futter, fodder' |
| [fiə̯] | /fia/ | 'vier, four' |
| [ōfə] | /ofa/ | 'Ofen, stove' |
| [hēfə] | /hefa/ | 'large pot' |
| [tsɪ̯f] | /tsif/ | 'tief, deep' |
| [prsɪ̯f] | /prsif/ | 'Brief, letter' |

Contrasts between /f/ and the other obstruent phonemes:

/f/ ≠ /p/ see 3.2.3 above.

/f/ ≠ /pp/ see 3.2.4 above.

/f/ ≠ /t/ see 3.2.5 above.

/f/ ≠ /tt/ see 3.2.6 above.

/f/ ≠ /k/ see 3.2.7 above.

/f/ ≠ /kk/ see 3.2.8 above.

| | | | |
|---|---|---|---|
| /f/ ≠ /ff/ | [ō̄fə] | /ofa/ | 'Ofen, stove' |
| | [of:ə] | /offa/ | 'offen, open' |
| /f/ ≠ /s/ | [fā̄n] | /fan/ | 'Fäden, threads' |
| | [sā̄n] | /san/ | 'sähen, sow' |
| /f/ ≠ /ss/ | [ā̄f] | /af/ | 'auf, on' |
| | [as:] | /ass/ | 'As, ace' |
| /f/ ≠ /š/ | [fō̄n] | /fon/ | 'Faden, thread' |
| | [šō̄n] | /šon/ | 'Schaden, harm' |
| /f/ ≠ /šš/ | [tswīf̣ḷ] | /tswifl/ | 'Zwiebel, onion' |
| | [tswiš:ṇ] | /tswiššn/ | 'zwischen, between' |
| /f/ ≠ /x/ | [toê̯f] | /toaf/ | 'Dorf, village' |
| | [toê̯ç̣] | /toax/ | 'Teig, dough' |
| /f/ ≠ /xx/ | [tɛî̯f] | /tɛif/ | 'tief, deep' |
| | [tɛî̯ç̣:ḷ] | /tɛixxl/ | 'Tüchlein, kerchief (dimin.)' |

3.2.10 The obstruent phoneme /ff/ occurs medially and finally:

| | | |
|---|---|---|
| [saf:ə] | /saffa/ | 'saufen, drink in great quantity' |
| [lef:ḷ] | /leffl/ | 'Löffel, spoon' |
| [khåf:] | /kkåff/ | 'Kaff, one-horse town' |
| [wif:] | /wiff/ | 'alert' |

Contrasts between /ff/ and the other obstruent phonemes:

/ff/ ≠ /p/ see 3.2.3 above.

/ff/ ≠ /pp/ see 3.2.4 above.

/ff/ ≠ /t/ see 3.2.5 above.

/ff/ ≠ /tt/ see 3.2.6 above.

/ff/ ≠ /k/ see 3.2.7 above.

/ff/ ≠ /kk/ see 3.2.8 above.

/ff/ ≠ /f/ see 3.2.9 above.

| | | | |
|---|---|---|---|
| /ff/ ≠ /s/ | [klof:ə] | /kloffa/ | 'gelaufen, run (p.part.)' |
| | [klōsə] | /klosa/ | 'Glaser, glazier' |
| /ff/ ≠ /ss/ | [pif:l̥] | /piffl/ | '(Büffel), boor' |
| | [pis:l̥] | /pissl/ | 'Bisschen, bit' |
| /ff/ ≠ /š/ | [pfif:] | /pfiff/ | 'Pfiffe, whistles' |
| | [fīš] | /fiš/ | 'Fisch, fish (sg.)' |
| /ff/ ≠ /šš/ | [åf:m̥] | /åffm/ | 'Affen, monkeys' |
| | [åš:n̥] | /åššn/ | 'Asche, ashes' |
| /ff/ ≠ /x/ | [khof:ə] | /kkoffa/ | 'Koffer, suitcase' |
| | [khōx] | /kkox/ | 'Koch, cook' |
| /ff/ ≠ /xx/ | [khof:t] | /kkofft/ | 'gehofft, hoped' |
| | [khox:t] | /kkoxxt/ | 'gekocht, cooked' |

3.2.11 The obstruent phoneme /s/ occurs initially, medially, and finally:

| | | |
|---|---|---|
| [sōk] | /sok/ | 'Sack, sack' |
| [soe̯ŋ] | /soaŋ/ | 'Sorgen, troubles' |
| [hɔu̯tsət] | /hɔutsat/ | 'Hochzeit, wedding' |
| [rɔu̯sn̥] | /rɔusn/ | 'Rosen, roses' |
| [fōs] | /fos/ | 'Fass, barrel' |
| [šūs] | /šus/ | 'Schuss, shot' |

Contrasts between /s/ and the other obstruent phonemes:

/s/ ≠ /p/ see 3.2.3 above.

/s/ ≠ /pp/ see 3.2.4 above.

/s/ ≠ /t/ see 3.2.5 above.

/s/ ≠ /tt/ see 3.2.6 above.

/s/ ≠ /k/ see 3.2.7 above.

/s/ ≠ /kk/ see 3.2.8 above.

/s/ ≠ /f/ see 3.2.9 above.

/s/ ≠ /ff/ see 3.2.10 above.

| | | | |
|---|---|---|---|
| /s/ ≠ /ss/ | [krēsə] | /kresa/ | 'Gräser, grasses' |
| | [kres:ə] | /kressa/ | 'grösser, taller' |
| /s/ ≠ /š/ | [flai̯s] | /flais/ | '(Fleiss), purpose' |
| | [flai̯š] | /flaiš/ | 'Fleisch, meat' |
| /s/ ≠ /šš/ | [rai̯s] | /rais/ | 'Reis, rice' |
| | [rai̯š:] | /raišš/ | 'Räusche, drunkenness (pl.)' |
| /s/ ≠ /x/ | [låu̯s] | /låus/ | 'Laus, louse' |
| | [låu̯x] | /låux/ | 'Lauge, lye' |
| /s/ ≠ /xx/ | [pāsl̥] | /pasl/ | 'Base, cousin (dimin.)' |
| | [pax:l̥] | /paxxl/ | 'Bächlein, brook (dimin.)' |

3.2.12 The obstruent phoneme /ss/ occurs medially and finally:

| | | |
|---|---|---|
| [mas:l̥] | /massl/ | 'luck' |
| [mis:tn̥] | /misstn/ | 'Misthaufen, dunghill' |
| [kɔi̯s:] | /kɔiss/ | 'Geissen, goats' |
| [ris:] | /riss/ | 'Risse, cracks' |

Contrasts between /ss/ and the other obstruent phonemes:

/ss/ ≠ /p/ see 3.2.3 above.

/ss/ ≠ /pp/ see 3.2.4 above.

/ss/ ≠ /t/ see 3.2.5 above.

/ss/ ≠ /tt/ see 3.2.6 above.

/ss/ ≠ /k/ see 3.2.7 above.

/ss/ ≠ /kk/ see 3.2.8 above.

/ss/ ≠ /f/ see 3.2.9 above.

/ss/ ≠ /ff/ see 3.2.10 above.

/ss/ ≠ /s/ see 3.2.11 above.

| | | | |
|---|---|---|---|
| /ss/ ≠ /š/ | [pes:ə] | /pessa/ | 'besser, better' |
| | [pēšə] | /peša/ | 'beiger, beige (nom.sg. masc.strong adj.)' |
| /ss/ ≠ /šš/ | [kos:n̥] | /kossn/ | 'gegossen, poured' |
| | [koš:n̥] | /košš̄n/ | 'mouth (pejor.)' |

| | | | |
|---|---|---|---|
| /ss/ ≠ /x/ | [was:ə̱l] | /wassall/ | 'Wässer(chen), water (dimin.)' |
| | [wāçə̱l] | /waxall/ | 'Wägel(chen), cart (dimin.)' |
| /ss/ ≠ /xx/ | [tas:l] | /tassl/ | 'Täss(chen), cup (dimin.)' |
| | [taç:l] | /taxxl/ | 'Dächlein, roof (dimin.)' |

3.2.13 The obstruent phoneme /š/ occurs initially, medially, and finally:

| | | |
|---|---|---|
| [šɔu̯stə] | /šɔusta/ | 'Schuster, shoemaker' |
| [šɛp:s] | /šɛpps/ | 'crooked' |
| [pai̯tšn] | /paitšn/ | 'Peitsche, whip' |
| [wātšn] | /watšn/ | 'box on the ear' |
| [pūš] | /puš/ | 'Busch, bush' |
| [pēš] | /peš/ | 'beige, beige' |

Contrasts between /š/ and the other obstruent phonemes:

| | | | |
|---|---|---|---|
| /š/ ≠ /p/ | see 3.2.3 above. | | |
| /š/ ≠ /pp/ | see 3.2.4 above. | | |
| /š/ ≠ /t/ | see 3.2.5 above. | | |
| /š/ ≠ /tt/ | see 3.2.6 above. | | |
| /š/ ≠ /k/ | see 3.2.7 above. | | |
| /š/ ≠ /kk/ | see 3.2.8 above. | | |
| /š/ ≠ /f/ | see 3.2.9 above. | | |
| /š/ ≠ /ff/ | see 3.2.10 above. | | |
| /š/ ≠ /s/ | see 3.2.11 above. | | |
| /š/ ≠ /ss/ | see 3.2.12 above. | | |
| /š/ ≠ /šš/ | [fīš] | /fiš/ | 'Fisch, fish' |
| | [fiš:] | /fišš/ | 'Fische, fish (pl.)' |
| /š/ ≠ /x/ | [pēš] | /peš/ | 'beige, beige' |
| | [pēç] | /pex/ | 'Pech, pitch' |
| /š/ ≠ /xx/ | [prōšn] | /prošn/ | 'Brosche, brooch' |
| | [prox:ə] | /proxxa/ | 'gebrochen, broken' |

3.2.14 The obstruent phoneme /šš/ occurs medially and finally:

| | | |
|---|---|---|
| [piš:l̥] | /pišš l/ | 'Büschel, sheaf' |
| [fåš:iŋ] | /fåšši ŋ/ | 'Fasching, carnival' |
| [weš:] | /wešš/ | 'Wäsche, laundry' |
| [kwaš:] | /kwašš/ | 'Gewäsch, idle talk' |

Contrasts between /šš/ and the other obstruent phonemes:

/šš/ ≠ /p/ see 3.2.3 above.

/šš/ ≠ /pp/ see 3.2.4 above.

/šš/ ≠ /t/ see 3.2.5 above.

/šš/ ≠ /tt/ see 3.2.6 above.

/šš/ ≠ /k/ see 3.2.7 above.

/šš/ ≠ /kk/ see 3.2.8 above.

/šš/ ≠ /f/ see 3.2.9 above.

/šš/ ≠ /ff/ see 3.2.10 above.

/šš/ ≠ /s/ see 3.2.11 above.

/šš/ ≠ /ss/ see 3.2.12 above.

/šš/ ≠ /š/ see 3.2.13 above.

| | | | |
|---|---|---|---|
| /šš/ ≠ /x/ | [weš:] | /wešš/ | 'Wäsche, laundry' |
| | [wēç] | /wex/ | 'Weg, way' |
| /šš/ ≠ /xx/ | [taš:l̥] | /tašš l/ | 'Täschlein, pocket (dimin.)' |
| | [taç:l̥] | /taxx l/ | 'Dächlein, roof (dimin.)' |

3.2.15 The obstruent phoneme /x/ has the allophones [h], [ç] and [x]. All three allophones are phonetically similar and occur in mutually exclusive environments:[106] [h] occurs initially (except for such nonce words as [ūhū] 'owl', [ōha] 'whoa' for which see note 114.)

| | | |
|---|---|---|
| [hɔux̂] | /xɔux/ | 'hoch, high' |
| [hoa̮t:] | /xoatt/ | 'hart, hard' |

[ç] occurs medially and finally after front vowel, and after consonant (see note 101).

| | | |
|---|---|---|
| [jāçə] | /jaxa/ | 'Jäger, hunter' |
| [wēç] | /wex/ | 'Weg, way' |
| [tsīç] | /tsix/ | 'Züge, trains' |
| [mȫ±ç] | /melx/ | 'Milch, milk' |

[x] occurs medially and finally after back vowel:

| | | |
|---|---|---|
| [tsūx] | /tsux/ | 'Zug, railroad train' |
| [tōx] | /tox/ | 'Tag, day' |
| [mōxə] | /moxa/ | 'mager, lean' |

Contrasts between /x/ and the other obstruent phonemes:

/x/ ≠ /p/ see 3.2.3 above.

/x/ ≠ /pp/ see 3.2.4 above.

/x/ ≠ /t/ see 3.2.5 above.

/x/ ≠ /tt/ see 3.2.6 above.

/x/ ≠ /k/ see 3.2.7 above.

/x/ ≠ /kk/ see 3.2.8 above.

/x/ ≠ /f/ see 3.2.9 above.

/x/ ≠ /ff/ see 3.2.10 above.

/x/ ≠ /s/ see 3.2.11 above.

/x/ ≠ /ss/ see 3.2.12 above.

/x/ ≠ /š/ see 3.2.13 above.

/x/ ≠ /šš/ see 3.2.14 above.

/x/ ≠ /xx/ [štrīç] /štrix/ 'Strich, line'
[štriç:] /štrixx/ 'Striche, lines'

3.2.16 The obstruent phoneme /xx/ occurs in medial and final position. It has the allophones [ç:] and [x:].

[ç:] appears after front vowel:

| | | |
|---|---|---|
| [khɛi̯ç:l̩] | /kkɛixxl/ | 'kind of doughnut' |
| [šliç:] | /šlixx/ | 'Schliche, tricks' |

[x:] occurs after back vowel:

| | | |
|---|---|---|
| [prox:ə] | /proxxa/ | 'gebrochen, broken' |
| [såx:] | /såxx/ | '(Sache), property' |

For contrasts between /xx/ and the other obstruent phonemes see 3.2.3-3.2.15 above.

3.2.17 Obstruents and resonants.

In phonetic terms the name obstruent subsumes consonant sounds of the stop, affricate, and fricative categories. In the dialect at hand the obstruents are further defined in the following way:

a) All obstruent phonemes are voiceless.

b) Each short obstruent phoneme contrasts with its long equivalent.

Stops are articulated at the bilabial, dental, and velar points of articulation. Fricatives are produced at the labiodental, postdental, alveopalatal, and velar points of articulation.

The obstruents:

| | | | | |
|---|---|---|---|---|
| /p/ | | /t/ | | /k/ |
| /pp/ | | /tt/ | | /kk/ |
| | /f/ | /s/ | /š/ | /x/ |
| | /ff/ | /ss/ | /šš/ | /xx/ |

The resonants traditionally comprise nasal consonants, semivowels, and liquids. In the dialect of Bergstetten resonants are further defined as contrasting with obstruents in these points:

a) All resonants are voiced (see 3.2.18 for /w/).

b) Resonants do not have contrastive consonant length.

The resonants:

| | | | |
|---|---|---|---|
| /w/ | /l/ | /j/ | /r/ |
| /m/ | /n/ | /ŋ/ | |

3.2.18 The resonant phoneme /w/ occurs initially and medially:

| | | |
|---|---|---|
| [wōŋ] | /woŋ/ | 'Wagen, waggon' |
| [wētə] | /weta/ | 'Wetter, weather' |
| [šōwə] | /šowa/ | 'Schober, hayrick' |
| [īwə] | /iwa/ | 'über, over' |
| [šwoe̯ts] | /šwoats/ | 'schwarz, black' |

/w/ has been classified as a fricative on the phonetic level (cf. 3.1.10). It lacks the vowel articulation of [u] to be called a semivowel. It is pronounced with bilabial friction and flat lips. On the other hand it does not fit into the obstruent pattern since it lacks the obstruent characteristics established above (3.2.17):

a) it has voicing

b) it does not have a long counterpart and consequently cannot follow a short vowel allophone. It is on the basis of pattern congruity that /w/ is excluded from the obstruent phonemes and grouped with resonant phonemes.[107] It is distinct from other resonants in that it does not occur before obstruents or finally.

Contrasts between /w/ and the other resonant phonemes:

| | | | |
|---|---|---|---|
| /w/ ≠ /m/ | [wōŋ] | /woŋ/ | 'Wagen, cart' |
| | [mōŋ] | /moŋ/ | 'Magen, stomach' |

| | | | |
|---|---|---|---|
| /w/ ≠ /n/ | [wōsn̥] | /wosn/ | 'lawn' |
| | [nōsn̥] | /nosn/ | 'Nase, nose' |
| /w/ ≠ / / | [låu̯wə] | /låuwa/ | 'Laub, leaves' |
| | [låu̯ŋə] | /låuŋa/ | 'leugnen, deny' |
| /w/ ≠ /l/ | [kwōŋ] | /kwoŋ/ | 'gewogen, weighed (p.part.)' |
| | [klōŋ] | /kloŋ/ | 'gelogen, lied (p.part.)' |
| /w/ ≠ /j/ | [woə̯] | /woa/ | 'wahr, true' |
| | [joə̯] | /joa/ | 'Jahr, year' |
| /w/ ≠ /r/ | [wār] | /war/ | 'wäre, would be (1,3 sg.)' |
| | [rār] | /rar/ | 'rar, rare' |

3.2.19 The resonant phoneme /m/ has the allophones [m] and [m̥]. The syllabic allophone [m̥] occurs finally after labial consonants:

| | | |
|---|---|---|
| [åf:m̥] | /åffm/ | 'Affen, monkeys' |
| [jop:m̥] | /joppm/ | 'Joppe, jacket' |
| [lip:m̥] | /lippm/ | 'Lippe, lip' |

The allophone [m] occurs elsewhere, i.e., initially, medially, and finally after vowel:

| | | |
|---|---|---|
| [mas:l̥] | /massl/ | 'luck' |
| [mɔu̯s] | /mɔus/ | 'Mus, mush' |
| [ãmt] | /ãmt/ | 'Abend, evening' |
| [wåmp:m̥] | /wåmppm/ | 'belly' |
| [hõə̯m] | /hõam/ | 'heim, home (in 'go home')' |
| [lēm] | /lem/ | 'Leben, life' |

Contrasts between /m/ and the other resonant phonemes:

| | | | |
|---|---|---|---|
| /m/ ≠ /w/ | see 3.2.18 above. | | |
| /m/ ≠ /n/ | [mān] | /man/ | 'mähen, mow' |
| | [nān] | /nan/ | 'nähen, sew' |
| /m/ ≠ / / | [krōm] | /krom/ | 'Graben, ditch' |
| | [krōŋ] | /kroŋ/ | 'Kragen, collar' |

| | | | |
|---|---|---|---|
| /m/ ≠ /l/ | [mān] | /man/ | 'mähen, mow' |
| | [lān] | /lan/ | 'Läden, shops' |
| /m/ ≠ /j/ | [mōŋ] | /moŋ/ | 'Magen, stomach' |
| | [jōŋ] | /joŋ/ | 'jagen, hunt' |
| /m/ ≠ /r/ | [mes:ə] | /messa/ | 'Messer, knife' |
| | [res:ə] | /ressa/ | 'Rösser, horses' |

3.2.20 The resonant phoneme /n/ has the allophones [n] and [n̩]. The syllabic allophone [n̩] occurs finally after dental consonants:

| | | |
|---|---|---|
| [pet:n̩] | /pettn/ | 'Betten, beds' |
| [plåt:n̩] | /plåttn/ | 'Platte, bald head' |
| [kɛis:n̩] | /kɛissn/ | 'giessen, pour' |

The allophone [n] occurs elsewhere, i.e., initially, medially, and finally after vowel:

| | | |
|---|---|---|
| [nōs] | /nos/ | 'nass, wet' |
| [nus:] | /nuss/ | 'Nüsse, nuts' |
| [wɑ̃nə] | /wɑ̃na/ | 'Wanne, tub' |
| [štõə̯nə] | /štõana/ | 'Steine, stones' |
| [fōn] | /fon/ | 'Faden, thread' |
| [sān] | /san/ | 'sähen, sow' |

Contrasts between /n/ and the other resonant phonemes:

/n/ ≠ /w/ see 3.2.18 above.

/n/ ≠ /m/ see 3.2.19 above.

| | | | |
|---|---|---|---|
| /n/ ≠ /ŋ/ | [wān] | /wan/ | 'wehen, blow' |
| | [wāŋ] | /waŋ/ | 'Wagen, waggons' |
| /n/ ≠ /l/ | [mān] | /man/ | 'mähen, mow' |
| | [mā̠l̠] | /mal/ | 'Maul, mouth' |
| /n/ ≠ /j/ | [nɑ̄] | /nå/ | 'nahe, near' |
| | [jɑ̄] | /jå/ | 'ja, yes' |

| | | | |
|---|---|---|---|
| /n/ ≠ /r/ | [nɔu̯t] | /nɔut/ | 'Not, need' |
| | [rɔu̯t] | /rɔut/ | 'rot, red' |

3.2.21 The resonant phoneme /ŋ/ has the allophones [ŋ] and [ŋ̩]. The syllabic allophone [ŋ̩] occurs finally after /kk/:

| | | |
|---|---|---|
| [klok:ŋ̩] | /klokkŋ/ | 'Glocken, bells' |
| [hek:ŋ̩] | /hekkŋ/ | 'Hecken, hedges' |
| [ruk:ŋ̩] | /rukkŋ/ | 'rücken, move' |

The allophone [ŋ] occurs medially, and finally after vowel:

| | | |
|---|---|---|
| [wōŋə] | /woŋa/ | 'Wagner, cartwright' |
| [rēŋə] | /reŋa/ | 'regnen, rain' |
| [klōŋ] | /kloŋ/ | 'gelogen, lied (p.part.)' |
| [sēŋ] | /seŋ/ | 'sehen, see' |

Contrasts between /ŋ/ and the other resonant phonemes:

/ŋ/ ≠ /w/ see 3.2.18 above.

/ŋ/ ≠ /m/ see 3.2.19 above.

/ŋ/ ≠ /n/ see 3.2.20 above.

| | | | |
|---|---|---|---|
| /ŋ/ ≠ /l/ | [wōŋ] | /woŋ/ | 'Wagen, waggon' |
| | [wōɫ] | /wol/ | 'Wolle, wool' |

/ŋ/ ≠ /j/ No contrast can be found (see 3.2.23)

| | | | |
|---|---|---|---|
| /ŋ/ ≠ /r/ | [wāŋ] | /waŋ/ | 'Wagen, waggons' |
| | [wār] | /war/ | 'wäre, would be (1,3 sg.)' |

3.2.22 The resonant phoneme /l/ has the allophones [l], [l̩] and [ɫ]. [ɫ] occurs postvocalically:

| | | |
|---|---|---|
| [pål] | /pål/ | 'Ball, ball' |
| [fāɫ] | /fal/ | 'faul, lazy' |

[l̩] occurs in final position after consonants (including /l/):

| | | |
|---|---|---|
| [flaš:l̩] | /flaššl/ | 'Fläsch(chen), bottle (dimin.)' |
| [sek:l̩] | /sekkl/ | 'Socken, sock (dimin.)' |
| [plāɫl̩] | /plall/ | 'Blätt(chen), leaflet' |

[l] occurs initially and in non-final consonant clusters:

| | | |
|---|---|---|
| [lɔ̯us] | /lɔus/ | 'Los, lot' |
| [leš:n̩] | /leššn/ | 'löschen, extinguish' |
| [klō̲s] | /klos/ | 'Glas, glass' |
| [tslaf:ə] | /tslaffa/ | 'zerlaufen, melt' |
| [prek:lə] | /prekkla/ | 'beet crushing machine' |

Contrasts between /l/ and the other resonant phonemes:

/l/ ≠ /w/ see 3.2.18 above.

/l/ ≠ /m/ see 3.2.19 above.

/l/ ≠ /n/ see 3.2.20 above.

/l/ ≠ /ŋ/ see 3.2.21 above.

| | | | |
|---|---|---|---|
| /l/ ≠ /j/ | [lē̲tə] | /leta/ | 'Leder, leather' |
| | [jē̲tə] | /jeta/ | 'jeder, everyone' |
| /l/ ≠ /r/ | [laf:ə] | /laffa/ | 'laufen, run' |
| | [raf:ə] | /raffa/ | 'raufen, fight' |

3.2.23 The voiced palatal glide [j] permits two types of phonemic analysis:

a) Since [j] shares the high front timbre of /i/, and since it can be considered to be in complementary distribution with /i/, [j] could be called a non-syllabic allophone of /i/. [j] can never carry word stress. It is confined to a pre-vocalic position.

b) [j] is a separate resonant phoneme /j/ because it follows the consonant pattern of the dialect, e.g.,

| | | |
|---|---|---|
| [joə̯] | /joa/ | 'Jahr, year' |
| [toə̯] | /toa/ | 'Tor, gate' |
| [šoə̯] | /šoa/ | '(Pflug)schar, plough-share' |
| [koə̯] | /koa/ | 'gar, finished' |
| [poə̯] | /poa/ | 'Paar, pair' |
| [woə̯] | /woa/ | 'wahr, true' |

Moreover, since [w] was clearly established as an independent phoneme /w/ (see 3.2.18), it appears desirable to regard [j] as a phoneme /j/ also, for reasons of symmetry. This latter view is adopted here:

| | | |
|---|---|---|
| [joə̯] | /joa/ | 'Jahr, year' |
| [jō̲ŋ] | /joŋ/ | 'jagen, hunt' |
| [jes:əs] | /jessas/ | '(Jesus), heavens above' |

Contrasts between /j/ and the other resonant phonemes:

/j/ ≠ /w/ see 3.2.18 above.

/j/ ≠ /m/ see 3.2.19 above.

/j/ ≠ /n/ see 3.2.20 above.

/j/ ≠ /ŋ/ see 3.2.21 above.

/j/ ≠ /l/ see 3.2.22 above.

/j/ ≠ /r/

| | | |
|---|---|---|
| [joə̯] | /joa/ | 'Jahr, year' |
| [roə̯] | /roa/ | 'Rohr, pipe' |

3.2.24 The resonant phoneme /r/ occurs initially, medially, and finally (rare). It has no syllabic allophone (except in [pr̥:] 'brr, whoa' for which see note 114), and it never occurs before consonants.

| | | |
|---|---|---|
| [rɔu̯x] | /rɔux/ | 'roh, raw' |
| [proə̯t] | /proat/ | 'breit, wide' |
| [leə̯rə] | /leara/ | 'Lehrer, teacher' |
| [lār] | /lar/ | 'leer, empty' |
| [šār] | /šar/ | 'Schere, scissors' |

Contrasts between /r/ and the other resonant phonemes can be found under 3.2.18-3.2.23 above.

# 4.0 THE VOWELS AND DIPHTHONGS

## 4.1 The Phonetic Inventory of Vowels and Diphthongs

### 4.1.1 Phonetic charts of vowels and diphthongs

| | | | |
|---|---|---|---|
| a) short vowels | i | ü | u |
| | e | ö | o |
| | | ə | |
| | ɛ | | |
| | a | | å |
| b) long vowels | $\bar{i}$ | $\bar{ü}$ | $\bar{u}$ |
| | $\bar{e}$ | $\bar{ö}$ | $\bar{o}$ |
| | $\bar{a}$ | | $\bar{å}$ |
| c) long nasalized vowels | $\tilde{\bar{i}}$ | | $\tilde{\bar{u}}$ |
| | $\tilde{\bar{e}}$ | | $\tilde{\bar{o}}$ |
| | $\tilde{\bar{a}}$ | | $\tilde{\bar{å}}$ |
| d) diphthongs | $i\underset{\frown}{ə}$ | | $u\underset{\frown}{ə}$ |
| | $e\underset{\frown}{ə}$ | | $o\underset{\frown}{ə}$ |
| | $ɛ\underset{\frown}{i}$ | | $ɔ\underset{\frown}{i}, ɔ\underset{\frown}{u}$ |
| | $a\underset{\frown}{i}$ | | $å\underset{\frown}{u}$ |
| e) nasalized diphthongs | | | $\tilde{o}\underset{\frown}{ə}$ |
| | $\tilde{ɛ}\underset{\frown}{i}$ | | $\tilde{ɔ}\underset{\frown}{u}$ |

The relative phonetic quality of vowels and diphthongs is indicated by their positions in the charts. More detailed phonetic descriptions are given below. No particular system of phonetic transcription has been adopted here. Symbols such as ü, ö, and å are used for the sake of convenience. Umlaut dots indicate rounding on ü and ö. Nasalization is shown by the use of ˜.

4.1.2 Short vowels

[i] is high front unrounded:

| | |
|---|---|
| [hit:s] | 'Hitze, heat' |
| [hint:n̩] | 'hinten, behind' |
| [pip:] | 'Pfeife, pipe' |
| [khit:s] | 'Kitz, kid (animal)' |
| [fiš:] | 'Fische, fish (pl.)' |
| [sint:] | 'Sünde, sin' |
| [klik:] | 'Glück, happiness' |
| [tiš:] | 'Tische, tables' |
| [šis:l̩] | 'Schüssel, bowl' |
| [šlis:l̩] | 'Schlüssel, key' |
| [šliç:] | 'Schliche, tricks' |
| [šip:fl̩] | 'Schuppen, shed (dimin.)' |

4.1.3 [ü] is a high front rounded vowel. This sound is rare. It occurs in these examples:

| | |
|---|---|
| [küłt:] | 'gilt, (it) is valid' |
| [üłt:is] | 'Iltis, polecat' |

4.1.4 [e] is mid front unrounded:

| | |
|---|---|
| [sek:] | 'Säcke, sacks' |
| [het:sn̩] | 'hetzen, sick (a dog)' |
| [plek:e] | '(blöken), cry' |
| [pet:] | 'Bett, bed' |

[kfret:] 'toil'
[ek:] 'Ecke, corner'
[trep:m̩] 'Treppe, stairs'
[fet:ə] 'Vetter, cousin (male)'
[khes:l̩] 'Kessel, kettle'
[lef:l̩] 'Löffel, spoon'
[wek:ə] 'Wecker, alarm clock'
[pes:ə] 'besser, better'
[frek:ə] 'die (of animals)'
[weš:] 'Wäsche, laundry'
[pek:] 'Böcke, rams'
[leç:ə] 'Löcher, holes'

4.1.5 [ö] is mid front open rounded. It is of low incidence:

[höɬt:sl̩] '(Ge)hölz, wood (dimin.)'
[pöɬt:sn̩] (reflex.) 'beat it'
[khöɬt:] 'Kälte, cold'
[höɬf:ə] 'helfen, help'
[öɬt:ə] 'älter, older'

4.1.6 [ɛ] is low front close and unrounded:

[fɛt:ə] 'fetter, fatter'
[pɛt:n̩] 'beten, pray'
[ɛs:n̩] 'essen, eat'
[ɛp:ə] 'etwa, perhaps'
[šɛp:s] 'crooked'
[lɛk:ə] 'lecken, lick'
[plɛk:ə] 'Blätter, leaves'
[rɛç:ə] 'Rechen, rake'
[rɛç:ts] 'rechts, right'
[ɛç:t] 'echt, genuine'
[prɛç:ə] 'brechen, break'
[hɛk:s] 'Hexe, witch'
[mɛs:] 'Messe, mass'
[fɛt:sn̩] 'Fetzen, rag'

4.1.7 [a] is low front unrounded:

| | |
|---|---|
| [saf:ə] | 'saufen, drink in great quantity' |
| [kwaš:] | 'Gewäsch, idle talk' |
| [raf:ə] | 'raufen, fight' |
| [khas:tn̩] | 'Kästen, chests' |
| [pant:l̩] | 'Band, ribbon (dimin.)' |
| [hak:l̩] | '(Hacke), hatchet (dimin.)' |
| [pak:l̩] | 'Päck(chen), parcel' |
| [kwat:š] | 'Quatsch, rubbish' |
| [khap:l̩] | 'Käpp(chen), hat (dimin.)' |
| [mas:l̩] | 'good luck' |
| [khamp:l̩] | 'Kamm, comb' |
| [pas:n̩] | 'passen, fit' |
| [hat:s] | 'magpie' |
| [hak:sn̩] | 'leg' |
| [khat:sl̩] | 'Kätz(chen), kitten' |
| [šat:sl̩] | 'Schätzlein, sweetheart' |
| [trat:sn̩] | 'tease' |
| [ak:ə] | 'Äcker, fields' |

4.1.8 [ə] is mid central tending toward [a] in quality. [ə] occurs only in weakly stressed syllables (for stress see 4.2.23):

| | |
|---|---|
| [təšlo̍ŋ] | 'erschlagen, slay' |
| [o̍wə] | '(her)ab, down' |
| [šowə] | 'Schober, hayrick' |
| [fəlóo̯n] | 'verloren, lost (p.part.)' |
| [hotən] | 'Hadern, rags' |
| [höɬt:sən] | 'hölzern, wooden' |
| [ai̯sən] | 'eisern, iron (adj.)' |

4.1.9 [u] is high back rounded:

| | |
|---|---|
| [fuk:s] | 'Fuchs, fox' |
| [pruk:] | 'Brücke, bridge' |
| [hunt:] | 'Hunde, dogs' |
| [pup:m̩] | 'Puppe, doll' |

[pfuš:ə] 'Pfuscher, bungler'
[tuš:] 'Dusche, shower'
[šus:ən] 'schussern, play marbles'
[truk:ə] 'trocken, dry'
[sułt:s] 'Sülze, head cheese'
[pus:l̥] 'kiss'
[tsunt:n̥] '(ge)zünd(et), ignited'
[fux:tl̥] 'Fuchtel, rod'
[klump:] '(Gelumpe), trash'

4.1.10 [o] is mid back rounded:

[fot:sn̥] 'face (pejor.)'
[klok:ŋ̥] 'Glocken, bells'
[prot:sət] 'protzig, ostentatious'
[koš:n̥] 'mouth (pejor.)'
[štop:sl̥] '(Stöpsel), cork'
[kšos:n̥] 'geschossen, shot (p.part.)'
[sos:] 'Sosse, sauce'
[top:lt] 'doppelt, double'
[ok:s] 'Ochse, ox'
[šop:m̥] 'Schoppen, 1/4 liter'

4.1.11 [å] is low back rounded:

[såx:] '(Sache), property'
[håk:ə] 'Hacke, axe'
[kmåx:t] 'gemacht, made (p.part.)'
[åłt:ə] 'Alter, age'
[åk:ə] 'Acker, field'
[påk:ə] 'packen, seize'
[råt:sn̥] 'Ratten, rats'
[plåt:sn̥] 'platzen, burst'
[åp:fl̥] 'Apfel, apple'
[rås:tn̥] 'rasten, rest'
[flåš:n̥] 'Flasche, bottle'
[tåš:n̥] 'Tasche, pocket'
[åf:] 'Affe, monkey'

[frȧt:s] 'Fratz, brat'
[wȧk:sn] 'wachsen, grow'
[rȧš:ln] 'rascheln, rustle'
[pȧt:sn] '(Batzen), lump'
[hȧx:t] 'Habicht, hawk'

4.1.12 Long vowels.

[ī] is high front unrounded:

[kšīn] 'geschieden, divorced'
[mī] 'mich, me'
[kwīs] 'gewiss, certainly'
[špīs] '(Spiess), sliver'
[tīgl] 'Tiegel, saucepan'
[klīn] 'gelitten, suffered (p.part.)'
[wīsn] 'Wiese, meadow'
[sīm] 'sieben, seven'
[krīm] 'gerieben, rubbed (p.part.)'
[šī] 'Ski, ski'
[īwə] 'über, over'
[īs] 'iss, eat (imperat.sg.)'
[fīš] 'Fisch, fish'
[frīš] 'frisch, fresh'
[štīwl] 'Stüb(chen), room (dimin.)'
[kfrīs] 'Fresse, face (pejor.)'
[ī līç] 'ich liege, I lie'

4.1.13 [ǖ] is high front rounded:

[hǖɬ] 'waterhole'
[mǖɬ] 'Mühle, mill'
[mǖɬç] 'Milch, milk'
[ī hǖɬf] 'ich helfe, I help'
[fǖɬ] 'viel, much'
[wǖɬt] '(wild), ugly'
[ī wǖɬ] 'ich will, I want'
[tsǖɬn] 'Zille, skiff'
[fǖɬts] 'Filz, felt'
[pǖɬts] 'Pilz, mushroom'

4.1.14 [ē] is mid front unrounded:

| | |
|---|---|
| [lēm] | 'Leben, life' |
| [plēt] | 'blöd, stupid' |
| [rēŋ] | 'Regen, rain' |
| [ēm] | 'eben, plain' |
| [kseēŋ] | 'gesehen, seen' |
| [šēwən] | 'scheppern, clatter' |
| [rēn] | 'reden, speak' |
| [prētsn̩] | 'Brezel, pretzel' |
| [lētə] | 'Leder, leather' |
| [wētə] | 'Wetter, weather' |
| [tswētə] | 'sweater' |
| [ēsl̩] | 'Esel, donkey' |
| [klē] | 'Klee, clover' |
| [pēsn̩] | 'Besen, broom' |
| [trēk] | 'Dreck, dirt' |
| [špēk] | 'Speck, bacon' |
| [rē] | 'Reh, deer' |

4.1.15 [ɵ̄] is mid front open rounded:

| | |
|---|---|
| [ɵ̄ɬ] | 'Öl, oil' |
| [khɵ̄ɬə] | 'Keller, cellar' |
| [sɵ̄ɬ] | 'Seele, soul' |
| [khɵ̄ɬ] | 'kühl, cool' |
| [fɵ̄ɬə] | 'Fehler, mistake' |
| [kɵ̄ɬ] | 'gelt, isn't it so?' |
| [fɵ̄ɬt] | 'Feld, field' |
| [štɵ̄ɬn̩] | 'stehlen, steal' |
| [pɵ̄ɬts] | 'Pelz, fur' |
| [mɵ̄ɬ] | 'Mehl, flour' |
| [fɵ̄ɬsn̩] | 'Felsen, rock' |

4.1.16 [ɛ̄] is a low front close unrounded vowel occurring only in

| | |
|---|---|
| [ɛ̄tš] | 'ätsch' (interjection used by children to express malicious glee) |

Accordingly, [ɛ̄] is not listed on chart 4.1.1 b.

4.1.17 [ā] is low front unrounded:

| | |
|---|---|
| [fām] | 'färben, dye' |
| [pāsl̤] | 'Base, cousin (female, dimin.)' |
| [lān] | 'Läden, shops' |
| [plāɬl̤] | 'Blättlein, leaflet' |
| [wāŋ] | 'Wagen, (pl.), waggons' |
| [mān] | 'mähen, mow' |
| [trān] | 'drehen, turn' |
| [wātšn̤] | 'box on the ear' |
| [šnāwl̤] | 'Schnäbel, beaks' |
| [kāwl̤] | 'Gabeln, forks' |
| [sān] | 'sähen, sow' |
| [ān] | 'Ernte, harvest' |
| [fāt] | 'fade, boring' |
| [krāŋ] | 'Krägen, bollars' |
| [rāɬl̤] | '(Rädlein), bicycle (dimin.)' |
| [tāɬə] | 'Teller, plate' |
| [khās] | 'Käse, cheese' |
| [štāɬ] | 'steil, steep' |
| [tsāç] | 'zäh, tough' |
| [kāç] | '(jäh), quick' |
| [štrā] | 'Streu, litter' |

4.1.18 [ū] is high back rounded:

| | |
|---|---|
| [šūs] | 'Schuss, shot' |
| [tsūx] | 'Zug, railroad train' |
| [lūx] | 'Lüge, lie' |
| [pūgl̤] | 'Buckel, back' |
| [pūtə] | 'Butter, butter' |
| [lūsn̤] | 'listen' |
| [sūf] | 'drunkenness' |
| [nūɬl̤] | 'Nudel, noodle' |
| [pūš] | 'Busch, bush' |
| [ūhū] | 'Uhu, eagle-owl' |
| [pūx] | 'Bug, crease (noun)' |

4.1.19 [o̅] is mid back rounded:

| | |
|---|---|
| [no̅sn̰] | 'Nase, nose' |
| [ho̅sn̰] | 'Hasen, hares' |
| [fo̅s̰] | 'Fass, barrel' |
| [plo̅ts] | 'Platz, place' |
| [no̅s] | 'nass, wet' |
| [kšo̅m] | 'geschoben, pushed (p.part.)' |
| [šo̅n] | 'Schaden, damage' |
| [po̅n] | '(Boden), attic' |
| [šno̅wl̰] | 'Schnabel, beak' |
| [mo̅st̰] | 'Most, cider' |
| [o̅st] | 'Ast, branch' |
| [kso̅t] | 'chaff' |
| [mo̅t] | 'Maht, swath' |
| [ro̅gl̰] | 'paper sack' |
| [ro̅k] | 'Rock, skirt' |
| [po̅k] | 'Bock, ram' |
| [šlo̅s] | 'Schloss, lock' |
| [o̅wə] | '(her)ab, down' |
| [o̅fə] | 'Ofen, stove' |
| [lo̅n] | 'Laden, shop' |
| [fo̅n] | 'Faden, thread' |
| [kro̅s] | 'Gras, grass' |

4.1.20 [å̅] is low back rounded:

| | |
|---|---|
| [šå̅ɬn] | '(Schale), cup' |
| [få̅ɬ] | '(feil), for sale' |
| [tå̅ɬ] | 'Teil, part' |
| [wå̅ɬt] | 'Wald, wood' |
| [så̅ɬm] | 'Salbe, ointment' |
| [på̅ɬ] | 'Ball, ball' |
| [låxə] | 'Lager, depot' |
| [måsən] | 'Masern, measles' |
| [så̅ft] | 'Saft, juice' |
| [təwǻk] | 'Tabak, tobacco' |
| [krå̅ft] | 'Kraft, strength' |

4.1.21 Nasalized vowels. All nasalized vowels are long. The degree of nasalization is slight.

[ĩ] is high front unrounded nasalized:

| | |
|---|---|
| [lĩn] | '(lind), soft' |
| [rĩnə] | 'rinnen, leak' |
| [sĩŋə] | 'singen, sing' |
| [fĩŋə] | 'Finger, finger' |
| [khĩnt] | 'Kind, child' |
| [wĩnt] | 'Wind, wind' |
| [rĩŋ] | 'Ring, ring' |
| [fĩmpf] | 'fünf, five' |

4.1.22 [ẽ] is mid front unrounded nasalized:

| | |
|---|---|
| [sẽml̩] | 'Semmel, roll' |
| [ẽŋ] | 'eng, narrow' |
| [ĩ khẽn] | 'ich kenne, I know' |
| [rẽmə] | 'Riemen, belt' |
| [krẽ] | 'horseradish' |
| [rẽn] | 'renn, run (imperat.sg.)' |
| [sẽmpft] | 'Senf, mustard' |

4.1.23 [ã] is low front unrounded nasalized:

| | |
|---|---|
| [fã±l̩] | 'Fähnlein, pennant' |
| [pfã±l̩] | 'Pfännlein, frying pan (dimin.)' |
| [mã±l̩] | 'Männlein, man (dimin.)' |
| [wã±l̩] | '(Wännlein), vat (dimin.)' |
| [rãm] | 'Rahm, cream' |

4.1.24 [ũ] is high back rounded nasalized:

| | |
|---|---|
| [kzũnt] | 'gesund, healthy' |
| [hũnt] | 'Hund, dog' |
| [zũn] | 'Sonne, sun' |
| [prũnə] | 'Brunnen, well' |
| [kfũnə] | 'gefunden, found (p.part.)' |
| [kzũŋə] | 'gesungen, sung (p.part.)' |

[tsũŋ] 'Zunge, tongue'
[lũŋ] 'Lunge, lungs'

4.1.25 [õ] is mid back rounded nasalized:

[mõtə] 'Montag, Monday'
[krõt] 'crows (of baby)'
[põ] 'Bahn, path'
[mõ] 'Mann, man'
[šõ~šō~šo][108] 'schon, already'

4.1.26 [ã] is low back rounded nasalized:

[mãnə] 'Männer, men'
[kãns] 'Gans, goose'
[kãnsə] 'Gänserich, gander'
[sãmə] 'Samen, seed'
[tãŋk] 'Dank, thanks'
[krãŋk] 'krank, sick'
[pãŋk] 'Bank, bench'
[rãna] 'Runkel(rübe), beet'
[pãŋkret] 'scapegrace'

4.1.27 The diphthongs.

[iə̯] is a centering diphthong[109] with [i] as its first member and a central off-glide as its second:

[piə̯] 'Bier, beer'
[hiə̯n] 'Hirn, brain'
[tiə̯l̩] 'Türlein, door (dimin.)'
[piə̯štn̩] 'Bürste, brush'
[tiə̯štn̩] 'dürsten, thirst'
[khiə̯š:n̩] 'Kirschen, cherries'
[wiə̯t:] 'Wirt, innkeeper'
[khiə̯t:sə] 'kürzer, shorter'
[piə̯n] 'Birne, pear'
[fiə̯] 'für, for'
[tiə̯] 'Tür, door'
[hiə̯sl̩] 'silly fellow (jocul.)'

4.1.28 [eə̯] is a centering diphthong with [e] as a first member followed by a central off-glide.

| | |
|---|---|
| [kšeə̯t] | 'gesch(o)r(en), boorish' |
| [peə̯ç] | 'Berg, mountain' |
| [heə̯] | 'Herr, gentleman' |
| [eə̯çə] | 'Ärger, annoyance' |
| [peə̯] | 'Bär, bear' |
| [teə̯f:ə] | 'Dörfer, villages' |
| [keə̯štn̩] | 'Gerste, barley' |
| [keə̯m] | 'yeast' |
| [eə̯št] | 'erst, first' |
| [leə̯çŋ̍] | 'Lerche, lark' |
| [feə̯štn̩] | 'Ferse, heel' |
| [meə̯t:l̩] | 'Mörtel, plaster' |
| [reə̯n] | 'Röhre, oven' |
| [leə̯nə] | 'lernen, learn' |

4.1.29 [ɛi̯] is a closing diphthong (note 109) with [ɛ] as its first member and a high front (close) upglide as its second:

| | |
|---|---|
| [sɛi̯s:] | 'süss, sweet' |
| [kmɛi̯s] | 'Gemüse, vegetable' |
| [pɛi̯ç:l̩] | 'Büchlein, booklet' |
| [khɛi̯] | 'Kühe, cows' |
| [lɛi̯sn̩] | 'lösen, buy (a ticket)' |
| [lɛi̯t:n̩] | 'löten, solder' |
| [hɛi̯t:n̩] | 'hüten, herd (cattle)' |
| [lɛi̯çt] | 'Licht, light' |
| [krɛi̯ç] | 'Krieg, war' |
| [krɛi̯ŋ̍] | 'kriegen, receive' |
| [šɛi̯ç] | 'scheu, shy' |
| [nɛi̯çtən] | 'nüchtern, sober' |
| [fɛi̯ç] | 'Vieh, cattle' |
| [krɛi̯t] | 'entryway' |
| [fɛi̯s:] | 'Füsse, feet' |

[prɛi̯l̩] 'Brut(henne), setting hen'
[krɛi̯s:n̩] 'grüssen, greet'
[pɛi̯s:n̩] 'büssen, pay for (atone)'
[prɛi̯sl̩] '(Bröslein), crumb'

4.1.30 [ai̯] is a closing diphthong with [a] as its first member and a high front (close) up-glide as its second:

[lai̯çə] 'leihen, lend'
[sai̯çə] 'Seiher, strainer'
[rai̯t] '(es) reut, be sorry (3 sg.)'
[lai̯ç:] '(Leiche), funeral'
[ai̯s] 'Eis, ice'
[mai̯s] 'Mäuse, mice'
[khai̯wl̩] 'Kalb, calf (dimin.)'
[pai̯s:n̩] 'beissen, bite'
[fai̯ç] 'feige, cowardly'
[tsai̯ç] 'Zeug, stuff'
[pai̯tšn̩] 'Peitsche, whip'
[tai̯tš] 'deutsch, German'
[wai̯] 'Weib, woman'
[klai̯] 'gleich, right away'
[kšai̯t] 'gescheit, smart'
[fai̯ə] 'Feuer, fire'
[hai̯] 'Heu, hay'
[lai̯t] 'Leute, people'
[tai̯ə] 'teuer, expensive'
[krai̯s:n̩] 'pant'
[tsai̯səl̩] 'Zeisig, siskin (dimin.)'
[hai̯sə] 'Häuser, houses'

4.1.31 [uə̯] is a centering diphthong with [u] as a first member followed by a central off-glide:

[uə̯] 'Uhr, watch'
[špuə̯] 'Spur, track'
[šnuə̯] 'Schnur, string'
[muə̯t:ə] 'Mutter, mother'

| | |
|---|---|
| [kuə̯t] | 'gut, good' |
| [fuə̯] | 'Fuhre, waggon-load' |
| [puə̯ç][110] | 'Burg, castle' |
| [tuə̯št] | 'Durst, thirst' |
| [wuə̯št] | 'Wurst, sausage' |
| [tuə̯t:n̩] | 'Torte, (fancy) cake' |
| [khuə̯ts] | 'kurz, short' |
| [puə̯š:] | 'Bursche, fellow' |
| [šuə̯ts] | 'Schurz, apron' |
| [khuə̯fm̩] | 'Kurve, curve' |

4.1.32 [oə̯] is a centering diphthong with [o] as its first member and a central off-glide as its second:

| | |
|---|---|
| [loə̯st] | 'Leisten, cobbler's last' |
| [oə̯] | 'Ei, egg' |
| [koə̯t:n̩] | 'Garten, garden' |
| [khoə̯t:n̩] | 'Karten, cards' |
| [khoə̯p] | 'Korb, basket' |
| [poə̯] | 'Paar, pair' |
| [foə̯p] | 'Farbe, color' |
| [roə̯] | 'Rohr, pipe' |
| [kloə̯t] | 'Kleid, dress' |
| [oə̯m] | 'arm, poor' |
| [khoə̯n] | 'Korn, rye' |
| [šoə̯] | '(Pflug)schar, ploughshare' |
| [proə̯t] | 'breit, broad' |
| [koə̯s] | 'Geiss, goat' |
| [hoə̯s] | 'heiss, hot' |
| [woə̯ç] | 'weich, soft' |
| [moə̯ç] | 'Mark, marrow' |
| [toə̯ç] | 'Teig, dough' |

4.1.33 The two closing diphthongs [ɔi̯] and [ɔu̯] have phonetically lower first members than [oə̯] above. This difference is shown by the use of [ɔ].

[ɔi̯] is a closing diphthong with [ɔ] as its first member and a high front (close) up-glide as its second:

| | |
|---|---|
| [šnɔi̯t:n̩] | 'chop up branches for litter' |
| [wɔi̯t:s] | 'Weizen, wheat' |
| [ɔi̯t:ə] | 'Euter, udder' |
| [hɔi̯t:sn̩] | 'heizen, heat' |
| [šɔi̯t:n̩] | 'bark (tree)' |
| [prɔi̯t:n̩] | '(aus)breiten, spread' |
| [trɔi̯] | 'Getreide, grain' |
| [kɔi̯s:] | 'Geissen, goats' |
| [lɔi̯t:ən] | 'Leiter, ladder' |
| [kɔi̯fən] | 'geifern, slaver' |
| [sɔi̯f:ə] | 'Seife, soap' |
| [tsɔi̯çə] | 'Zeiger, hand (watch)' |

4.1.34 [ɔu̯] is a closing diphthong with [ɔ] as its first member (see 4.1.33) followed by a high back (close) up-glide:

| | |
|---|---|
| [flɔu̯] | 'Floh, flea' |
| [hɔu̯tsət] | 'Hochzeit, wedding' |
| [krɔu̯x] | 'Krug, pitcher' |
| [fəlóu̯sn̩] | 'verlosen, raffle off' |
| [krɔu̯s] | 'gross, large' |
| [khɔu̯] | 'Kuh, cow' |
| [rɔu̯sn̩] | 'Rose, rose' |
| [šlɔu̯t] | 'Schlot, chimney' |
| [ɔu̯stən] | 'Ostern, Easter' |
| [šɔu̯s:] | 'Schoss, lap' |
| [hɔu̯x] | 'hoch, high' |
| [mɔu̯s] | 'Mus, mush' |
| [šɔu̯stə] | 'Schuster, shoemaker' |
| [pɔu̯s:n̩] | 'knock (verb)' |
| [pfɔu̯tšn̩] | '(Pfötchen), paw' |
| [psɔu̯x] | 'Besuch, visit' |

4.1.35 [åu̯] is a closing diphthong with [å] as its first member and a high back (close) up-glide as its second:

| | |
|---|---|
| [åu̯x] | 'Auge, eye' |
| [påu̯x] | 'Bauch, belly' |
| [påu̯ə] | 'Bauer, farmer' |
| [såu̯wə] | 'sauber, clean' |
| [tåu̯ŋ] | 'taugen, be worth' |
| [håu̯m] | 'Haube, bonnet' |
| [såu̯] | '(Sau), pig' |
| [råu̯x:ə] | 'rauchen, smoke' |
| [måu̯s] | 'Maus, mouse' |

4.1.36 Nasalized diphthongs. Not all oral diphthongs have nasalized counterparts. The degree of nasalization is slight.

[ɛ̃i̯] is a closing diphthong with [ɛ̃] as a first member followed by a high front (close) up-glide:

| | |
|---|---|
| [wɛ̃i̯] | 'Wein, wine' |
| [hɛ̃i̯nt] | 'heu(te), today' |
| [fɛ̃i̯] | 'fein, fine' |
| [šɛ̃i̯] | 'Schein, slip' |
| [mɛ̃i̯] | 'mein, my' |
| [frɛ̃i̯nt] | 'Freund, friend' |
| [krɛ̃i̯nə] | 'weep' |

4.1.37 [õə̯] is a centering diphthong with [õ] as its first member and a central off-glide as its second:

| | |
|---|---|
| [štõə̯l̩] | 'Stein(chen), stone (dimin.)' |
| [põə̯l̩] | '(Beinchen), bone (dimin.)' |
| [khõə̯n] | 'keinen, not any (acc.sg.masc.)' |
| [əlõə̯] | 'allein, alone' |

4.1.38 [õu̯] is a closing diphthong with [õ] as its first member followed by a high back (close) up-glide. [õu̯] is of low frequency.

| | |
|---|---|
| [prõu̯] | 'braun, brown' |
| [tsõu̯] | 'Zaun, fence' |
| [lõu̯] | 'Lohn, wages' |

## 4.2 Vowel and Diphthong Phonemes

### 4.2.1 Charts of vowel and diphthong phonemes:

a) vowel phonemes (cf. 4.1.1a):

| | |
|---|---|
| /i/ | /u/ |
| /e/ | /o/ |
| /ɛ/ | |
| /a/ | /å/ |

b) nasalized vowel phonemes (cf. 4.1.1c):

| | |
|---|---|
| /ĩ/ | /ũ/ |
| /ẽ/ | /õ/ |
| /ã/ | /å̃/ |

c) diphthong phonemes (cf. 4.1.1d):

| | |
|---|---|
| /ia/ | /ua/ |
| /ea/ | /oa/ |
| /ɛi/ | /ɔi/,/ɔu/ |
| /ai/ | /åu/ |

d) nasalized diphthong phonemes (cf. 4.1.1e):

| | |
|---|---|
| | /õa/ |
| /ɛ̃i/ | /ɔ̃u/ |

### 4.2.2 Vowel length.

V. M. Schirmunski assumes three degrees of vowel length for the North Bavarian dialect of Jamburg on the Dnjepr.[111] Since this analysis is strictly phonetic, his observation may have been quite accurate. On the other hand, even more degrees of length might have been discovered by keener ears or with the aid of electronic devices.

A structural analysis of the same phonetic data would probably show that there is only one degree of vowel length on the phonemic level. At least this is true for the North Bavarian dialect of Bergstetten. Each short vowel (4.1.1a), with the exception of [ɛ] (cf. 4.1.16) and [ə], has a long allophone.[112] The distribution of long and short vowel allophones is mutually exclusive, hence non-contrastive. Short vowel allophones occur before long obstruents and before resonant + long obstruent. Long vowel allophones occur elsewhere, i.e., finally, before short obstruents, before resonant + short obstruent, and before single resonants, e.g.,

a) before obstruent:

| | | |
|---|---|---|
| [fīš] | /fiš/ | 'Fisch, fish (sg.)' |
| [fiš:] | /fišš/ | 'Fische, fish (pl.)' |
| [tīš] | /tiš/ | 'Tisch, table' |
| [tiš:] | /tišš/ | 'Tische, tables' |
| [plēç] | /plex/ | 'Blech, sheetmetal' |
| [pleç:ən] | /plexxan/ | 'blechern, made of sheetmetal' |
| [tāç] | /tax/ | 'Tage, days' |
| [taç:l̤] | /taxxl/ | 'Dächlein, roof (dimin.)' |
| [šlōs] | /šlos/ | 'Schloss, lock' |
| [sos:] | /soss/ | 'Sosse, sauce' |
| [šūs] | /šus/ | 'Schuss, shot' |
| [šus:ən] | /šussan/ | 'schussern, play marbles' |
| [rīs] | /ris/ | 'Riss, crack' |
| [ris:] | /riss/ | 'Risse, cracks' |
| [štrīk] | /štrik/ | 'Strick, rope' |
| [štrik:] | /štrikk/ | 'Stricke, ropes' |

| | | |
|---|---|---|
| [flēk] | /flek/ | 'Fleck, patch' |
| [flek:] | /flekk/ | 'Flecken, patches' |
| [krēt] | /kret/ | 'Gerede, gossip' |
| [kret:] | /krett/ | 'geredet, talked (p.part.)' |
| [wāt] | /wat/ | 'weht, blows (3 sg.)' |
| [wat:] | /watt/ | 'Watte, cotton' |
| [krīf] | /krif/ | 'Griff, grip' |
| [krif:l̩] | /kriffl/ | '(Griffel), fingers (pejor.)' |

b) finally (long allophones only):

| | | |
|---|---|---|
| [mī] | /mi/ | 'mich, me (acc.)' (see note 108) |
| [šī] | /ši/ | 'Ski, ski' |
| [šnē] | /šne/ | 'Schnee, snow' |
| [klē] | /kle/ | 'Klee, clover' |
| [štrā] | /štra/ | 'Streu, litter' |
| [mū] | /mu/ | 'cow' (baby talk) |
| [nå] | /nå/ | 'nah, near' |

c) before single resonant, resonant + vowel or another resonant (long allophones only):

| | | |
|---|---|---|
| [kšrīm] | /kšrim/ | 'geschrieben, written' |
| [krīn] | /krin/ | 'geritten, ridden' |
| [fīl] | /fil/ | 'viel, much' |
| [lēm] | /lem/ | 'Löwen, lions' |
| [ēm] | /em/ | 'eben, plain' |
| [lēŋ] | /leŋ/ | 'legen, lay' |
| [fōlə] | /fela/ | 'Fehler, error' |
| [lān] | /lan/ | 'Läden, shops' |
| [krāŋ] | /kraŋ/ | 'Krägen, collars' |
| [fām] | /fam/ | 'färben, dye' |
| [tālə] | /tala/ | 'Teller, plate' |
| [šwārə] | /šwara/ | 'schwerer; heavier' |
| [plālːl̩] | /plall/ | 'Blättlein, leaflet' |
| [nūlːl̩] | /null/ | 'Nudel, noodle' |
| [štōl] | /štol/ | 'Stall, stable' |

| | | |
|---|---|---|
| [šo͞n] | /šon/ | 'Schaden, damage' |
| [kšo͞m] | /kšom/ | 'geschoben, pushed' |
| [što͞ɬ̣l] | /štoll/ | 'Stadel, barn' |
| [tå͞ɬ] | /tål/ | 'Teil, part' |
| [šå͞ɬn] | /šåln/ | '(Schale), cup' |

d) before resonant + obstruent (/r/ does not occur before consonant):

| | | |
|---|---|---|
| [kö͞ɬt] | /kelt/ | 'Geld, money' |
| [köɬt:n̩] | /kelttn/ | 'gelten, be valid' |
| [khö͞ɬt] | /kkelt/ | 'kühlt, cools (3 sg.)' |
| [khöɬt:] | /kkeltt/ | 'Kälte, cold (noun)' |
| [w̃ĩnt] | /wĩnt/ | 'Wind, wind' |
| [wint:] | /wintt/ | 'Winde, winds' |
| [wint:ə] | /wintta/ | 'Winter, winter' |
| [khĩ̃ntl̩] | /kkĩntl/ | 'Kindlein, child (dimin.)' |
| [khint:l̩] | /kkinttl/ | 'chimney' |
| [hũ̃nt] | /xũnt/ | 'Hund, dog' |
| [hunt:] | /xuntt/ | 'Hunde, dogs' |
| [ksũ̃nt] | /ksũnt/ | 'gesund, healthy' |
| [kšunt:n̩] | /kšunttn/ | 'geschunden, tormented (p.part.)' |
| [rũ̃nt] | /rũnt/ | 'rund, round' |
| [trunt:] | /truntt/ | 'drunten, down (adv.)' |
| [fĩ̃mpf] | /fĩmpf/ | 'fünf, five' |
| [štrimp:f] | /štrimppf/ | 'Strümpfe, stockings' |

e) in words showing morphophonemic variation of vowel quality and consonant length:[113]

| | | |
|---|---|---|
| [ro͞k] | /rok/ | 'Rock, skirt' |
| [rek:] | /rekk/ | 'Röcke, skirts' |
| [so͞k] | /sok/ | 'Sack, sack' |
| [sek:] | /sekk/ | 'Säcke, sacks' |

| | | |
|---|---|---|
| [khōpf] | /kkopf/ | 'Kopf, head' |
| [khep:f] | /kkeppf/ | 'Köpfe, heads' |
| [khep:fl̥] | /kkeppfl/ | 'Köpf(chen), head (dimin.)' |
| [šōf] | /šof/ | 'Schaf, sheep' |
| [šaf:ə] | /šaffa/ | 'Schäfer, shepherd' |
| [plōts] | /plots/ | 'Platz, place' |
| [plat:sl̥] | /plattsl/ | 'Plätz(chen), cooky' |
| [lōx] | /lox/ | 'Loch, hole' |
| [leç:ə] | /lexxa/ | 'Löcher, holes' |
| [rōs] | /ros/ | 'Ross, horse' |
| [res:l̥] | /ressl/ | 'Rösslein, horse (dimin.)' |

4.2.3 The /i/-phoneme has the allophones [i ü ī ū].

[i] occurs medially before long obstruents and before nasal consonant + long obstruent:

| | | |
|---|---|---|
| [šis:l̥] | /šissl/ | 'Schüssel, bowl' |
| [pip:] | /pipp/ | 'pipe' |
| [wint:ə] | /wintta/ | 'Winter, winter' |
| [hint:ən] | /xinttan/ | 'Hintere, posterior' |

[ü] is restricted to a position before [ɬ] /l/ + long obstruent.[114] Examples are infrequent:

| | | |
|---|---|---|
| [küɬt:] | /kiltt/ | 'gilt, is valid' |
| [üɬt:is] | /ilttis/ | 'Iltis, polecat' |

[ī] occurs

a) finally:

| | | |
|---|---|---|
| [tī] | /ti/ | 'dich, you (acc.sg.)' |

b) medially before short obstruent:

| | | |
|---|---|---|
| [tīš] | /tiš/ | 'Tisch, table' |
| [štīç] | /štix/ | 'Stich, sting' |

c) initially and medially before resonant, followed by a vowel, pause, or syllabic resonant:

| | | |
|---|---|---|
| [ī̈we] | /iwa/ | 'über, over' |
| [klīn] | /klin/ | 'gelitten, suffered' |
| [štīẇl] | /štiwl/ | 'Stüb(chen), room (dimin.)' |
| [khīẇl] | /kkiwl/ | 'Kübel, pail' |

[ü̈] occurs before final [ɬ] /l/, before [ɬ] + another resonant or short obstruent:

| | | |
|---|---|---|
| [mü̈ɬ] | /mil/ | 'Mühle, mill' |
| [tsü̈ɬn] | /tsiln/ | 'Zille, skiff' |
| [mü̈ɬç] | /milx/ | 'Milch, milk' |

Contrasts between /i/ and the other vowel phonemes:

| | | | |
|---|---|---|---|
| /i/ ≠ /e/ | [štīç] | /štix/ | 'Stich, sting' |
| | [štēç] | /štex/ | 'Steg, footbridge' |
| /i/ ≠ /ɛ/ | [pit:n] | /pittn/ | 'bitten, ask' |
| | [pɛt:n] | /pɛttn/ | 'beten, pray' |
| /i/ ≠ /a/ | [hit:s] | /xitts/ | 'Hitze, heat' |
| | [hat:s] | /xatts/ | 'magpie' |
| /i/ ≠ /u/ | [tsīç] | /tsix/ | 'Züge, railroad trains' |
| | [tsūx] | /tsux/ | 'Zug, railroad train' |
| /i/ ≠ /o/ | [ī̈we] | /iwa/ | 'über, over' |
| | [ōwe] | /owa/ | '(her)ab, down' |
| /i/ ≠ /å/ | [khit:s] | /kkitts/ | 'Kitz, kid' |
| | [khåt:s] | /kkåtts/ | 'Katze, cat' |
| /i/ ≠ /ĭ/[115] | [klīn] | /klin/ | 'gelitten, suffered' |
| | [lĭ̈n] | /lĭn/ | '(lind), soft' |

4.2.4 The /e/-phoneme has the allophones [e ö ē ȫ].

Their distribution is the following:

[e] occurs

a) initially and medially before long obstruents:

| | | |
|---|---|---|
| [ek:] | /ekk/ | 'Ecke, corner' |
| [lef:l] | /leffl/ | 'Löffel, spoon' |
| [pet:] | /pett/ | 'Bett, bed' |

b) before nasal + long obstruent:

| | | |
|---|---|---|
| [hent:] | /xentt/ | 'Hände, hands' |
| [khe$\eta$k:t] | /kke$\eta$kkt/ | 'gehängt, hanged' |

[ö] is of low frequency and occurs only before [ɬ] /l/ + long obstruent:

| | | |
|---|---|---|
| [khöɬt:] | /kkeltt/ | 'Kälte, cold' |
| [tsöɬt:n̩] | /tselttn/ | '(Leb)zelten, gingerbread' |
| [höɬf:ə] | /xelffa/ | 'helfen, help' |
| [söɬç:] | /selxx/ | '(Selche), smoke house' |

[ē] occurs

a) finally:

| | | |
|---|---|---|
| [klē] | /kle/ | 'Klee, clover' |
| [rē] | /re/ | 'Reh, deer' |

b) medially before short obstruent:

| | | |
|---|---|---|
| [wēç] | /wex/ | 'Weg, way' |
| [krēsə] | /kresa/ | 'Gräser, grasses' |

c) initially and medially before resonant followed by a vowel, a pause, or syllabic resonant:

| | | |
|---|---|---|
| [kštēwə] | /kštewa/ | 'Gestöber, (snow)flurry' |
| [ēm] | /em/ | 'eben, plain' |
| [kšē$\eta$] | /kše$\eta$/ | 'geschehen, happened (p.part.)' |
| [plēɬl̩] | /plell/ | '(Blödel), idiot' |
| [prēɬl̩] | /prell/ | 'Brett(chen), board (dimin.)' |

[ō] occurs before final [ɬ] /l/, before /l/ + vowel, /l/ + resonant or short obstruent (see note 114):

| | | |
|---|---|---|
| [ōɬ] | /el/ | 'Öl, oil' |
| [mōɬ] | /mel/ | 'Mehl, flour' |
| [khōɬə] | /kkela/ | 'Keller, cellar' |
| [šōɬn] | /šeln/ | 'Schelle, box on the ear' |
| [fōɬsn̩] | /felsn/ | 'Felsen, rock' |
| [fōɬt] | /felt/ | 'Feld, field' |

Contrasts between /e/ and the other vowel phonemes:

| | | | |
|---|---|---|---|
| /e/ ≠ /i/ | [tek:] | /tekk/ | 'Decke, blanket' |
| | [tik:] | /tikk/ | 'dick, thick' |
| /e/ ≠ /ɛ/ | [pet:n̩] | /pettn/ | 'Betten, beds' |
| | [pɛt:n̩] | /pɛttn/ | 'beten, pray' |
| /e/ ≠ /a/ | [het:s] | /xetts/ | 'Hetze, chase' |
| | [hat:s] | /xatts/ | 'magpie' |
| /e/ ≠ /u/ | [pe̅ç] | /pex/ | 'Pech, pitch' |
| | [pu̅x] | /pux/ | 'Bug, crease (noun)' |
| /e/ ≠ /o/ | [e̅fə] | /efa/ | 'Öfen, stoves' |
| | [o̅fə] | /ofa/ | 'Ofen, stove' |
| /e/ ≠ /å/ | [ep:fl̩] | /eppfl/ | 'Äpfel, apples' |
| | [åp:fl̩] | /åppfl/ | 'Apfel, apple' |
| /e/ ≠ /ẽ/ | [re̅n] | /ren/ | 'reden, speak' |
| | [re̅̃n] | /rẽn/ | 'renn, run (imperat.sg.)' |
| | [khe̅n] | /kken/ | 'Kette, chain' |
| | [khe̅̃n] | /kkẽn/ | '(ich) kenne, know (1 sg.)' |

4.2.5 The /ɛ/-phoneme has the allophones [ɛ] and [ɛ̅]. [ɛ] occurs before long obstruents:

| | | |
|---|---|---|
| [fɛt:ə] | /fɛtta/ | 'fetter, fatter' |
| [ɛs:n̩] | /ɛssn/ | 'essen, eat' |
| [ɛp:ə] | /ɛppa/ | 'etwa, perhaps' |
| [rɛç:ə] | /rɛxxa/ | 'Rechen, rake' |
| [hɛk:s] | /xɛkks/ | 'Hexe, witch' |

The status of [ɛ̅] is marginal. It occurs in [ɛ̅tš] /ɛtš/ 'ätsch, serves you right', an interjection used by children (see note 114). Any other occurrences would be expected to follow the pattern: long vowel + short obstruent.

Contrasts between /ɛ/ and the other vowel phonemes:

| | | | |
|---|---|---|---|
| /ɛ/ ≠ /i/ | [rɛç:ts] | /rɛxxts/ | 'rechts, right' |
| | [riç:ts] | /rixxts/ | 'richtet, repair (imperat.pl.)' |
| /ɛ/ ≠ /e/ | [fɛt:ə] | /fɛtta/ | 'fetter, fatter' |
| | [fet:ə] | /fetta/ | 'Vetter, cousin (male)' |
| /ɛ/ ≠ /a/ | [mɛs:] | /mɛss/ | 'Messe, mass (relig.)' |
| | [mas:l̩] | /massl/ | 'luck (dimin.)' |
| /ɛ/ ≠ /ü/ | [šɛp:s] | /šɛpps/ | 'crooked' |
| | [šup:sə] | /šuppsa/ | 'Schupp, shove' |
| /ɛ/ ≠ /o/ | [prɛç:ə] | /prɛxxa/ | 'brechen, break' |
| | [prox:ə] | /proxxa/ | 'gebrochen, broken' |
| /ɛ/ ≠ /å/ | [mɛs:] | /mɛss/ | 'Messe, mass (relig.)' |
| | [mås:] | /måss/ | '(Mass), 1 liter (beer)' |

/ɛ/ has no nasalized counterpart; therefore no contrast can be shown.

4.2.6 The /a/-phoneme has the following allophones: [a ā ə].

[a] occurs

a) initially and medially before long obstruent:

| | | |
|---|---|---|
| [ak:ə] | /akka/ | 'Äcker, fields' |
| [trat:sn̩] | /trattsn/ | 'tease' |
| [raf:ə] | /raffa/ | 'raufen, fight' |
| [kwaš:] | /kwašš/ | '(Gewäsch), idle talk' |
| [lak:l̩] | /lakkl/ | 'fellow' |

b) before resonant + long obstruent:

| | | |
|---|---|---|
| [lant:lə] | /lanttla/ | 'Ländler, a Bavarian folk dance' |
| [ant:n̩] | /anttn/ | 'Ente, duck' |
| [paŋk:l̩] | /paŋkkl/ | 'Bänklein, bench (dimin.)' |
| [khamp:l̩] | /kkamppl/ | 'Kamm, comb' |

[ā] occurs

a) finally:

| | | |
|---|---|---|
| [štrā] | /štra/ | 'Streu, litter' |
| [mā] | /ma/ | 'mähe, mow (imperat.sg.)' |

b) medially before short obstruent:

| | | |
|---|---|---|
| [krāçəɬl̥] | /kraxall/ | 'soda pop' |
| [wāçəɬl̥] | /waxall/ | 'Wägel(chen), cart (dimin.)' |
| [fāt] | /fat/ | 'fade, boring' |
| [klāsl̥] | /klasl/ | 'Gläslein, glass (dimin.)' |
| [prāf] | /praf/ | 'brav, good (of children)' |

c) initially and medially before resonant, followed by a vowel, pause, or syllabic resonant:

| | | |
|---|---|---|
| [ān] | /an/ | 'Ernte, harvest' |
| [tāɬə] | /tala/ | 'Teller, plate' |
| [trān] | /tran/ | 'drehen, turn' |
| [māɬ] | /mal/ | 'Maul, mouth' |
| [šnāwl̥] | /šnawl/ | 'Schnäbel, beaks' |
| [khāwl̥] | /kkawl/ | 'Kabel, cable' |
| [rāɬl̥] | /rall/ | 'Rad, bicycle (dimin.)' |

[ə] occurs in weakly stressed syllables. [ə] is usually analyzed as an independent phoneme in standard German, but establishing it as a clear-cut contrastive unit has always been a problem.[116] The [ə] of standard German is also interpretable as an allophone of /e/. The situation is similar in the dialect at hand, yet different in several aspects:

a) Because of historical factors, the incidence of [ə] is far lower in this dialect than it is in standard German.

b) The timbre of [ə] is somewhat lower and more front, which makes [ə] phonetically similar to the low front phoneme /a/.

c) The naive spelling systems devised by dialect writers make rather consistent use of <a> both for [a] and [ə], including occurrences in the centering diphthongs [iə̯ eə̯ uə̯].[117] The choice of the symbol <a> over all other vowel symbols may well point to a phonemic decision of "like" for [a] and [ə] on the part of the dialect writers.

Since in this dialect [ə] is phonetically similar to /a/ rather than /e/, and since the occurrence of [ə] is limited to syllables bearing weak stress, [ə] is preferably to be regarded as an allophone of /a/.[118] Examples for the occurrence of [ə] /a/:

| | | |
|---|---|---|
| [štuk:ə] | /štukka/ | '(Stücke), some' (+ numeral) |
| [leç:ə] | /lexxa/ | 'Löcher, holes' |
| [təšlṓŋ] | /tašlóŋ/ | 'erschlagen, slay' |
| [fəkáf:ə] | /fakáffa/ | 'verkaufen, sell' |
| [hō̜tən] | /xotan/ | 'Hadern, rags' |
| [təwā́k] | /tawák/ | 'Tabak, tobacco' |
| [səlṓt] | /salót/ | 'Salat, salad' |

Contrasts of /a/ with the other vowel phonemes:

| | | | |
|---|---|---|---|
| /a/ ≠ /i/ | [tsāç] | /tsax/ | 'zäh, tough' |
| | [tsīç] | /tsix/ | 'Züge, railroad trains' |
| /a/ ≠ /e/ | [lātšn̩] | /latšn/ | 'Latschen, slippers' |
| | [lētšn̩] | /letšn/ | 'face (pejor.)' |
| /a/ ≠ /ɛ/ | [hak:sl̩] | /xakksl/ | 'leg (dimin.)' |
| | [hɛk:sl̩] | /xɛkksl/ | 'Häcksel, chopped up feed' |
| /a/ ≠ /u/ | [šat:sn̩] | /šattsn/ | 'schätzen, estimate' |
| | [šut:sn̩] | /šuttsn/ | 'schuppsen, push' |
| /a/ ≠ /o/ | [kāwl̩] | /kawl/ | 'Gabeln, forks' |
| | [kōwl̩] | /kowl/ | 'Gabel, fork' |

| | | | |
|---|---|---|---|
| /a/ ≠ /å/ | [štras:l̥] | /štrassl/ | 'Strasse, street (dimin.)' |
| | [štrås:] | /štråss/ | 'Strasse, street' |
| /a/ ≠ /ã/ | [wā±l̥] | /wall/ | 'Wade, calf (part of leg)' |
| | [wã±l̥] | /wãll/ | '(Wännlein), tub (dimin.)' |

4.2.7 The /u/-phoneme has a long and a short allophone.

[u] occurs

a) medially before long obstruents:

| | | |
|---|---|---|
| [pruk:] | /prukk/ | 'Brücke, bridge' |
| [tsruk:] | /tsrukk/ | 'zurück, back' |
| [šup:fə] | /šuppfa/ | 'Schuppen, shed' |
| [nús:pàm] | /nússpàm/ | 'Nussbaum, walnut tree' |
| [šus:ən] | /šussan/ | 'schussern, play marbles' |
| [khut:n̥] | /kkuttn/ | '(Kutte), dress' |

b) initially and medially before resonant + long obstruent:

| | | |
|---|---|---|
| [sunt:ə] | /suntta/ | 'Sonntag, Sunday' |
| [unt:ə] | /untta/ | 'Unter, jack' (cards) |
| [hunt:] | /xuntt/ | 'Hunde, dogs' |
| [khump:l̥] | /kkumppl/ | 'Kumpel, buddy' |
| [su±t:s] | /sultts/ | 'Sülze, headcheese' |

[ū] occurs

a) finally:

| | | |
|---|---|---|
| [šmū] | /šmu/ | '(Schmu), commission (for helping close a business transaction)' |
| [tū~tu] | /tu/ | 'du, you' |

b) initially and medially before short obstruents (incl. one example with [h] for which see 3.2.15):

| | | |
|---|---|---|
| [ūhū] | /uxu/ | 'Uhu, eagle-owl' |
| [lūx] | /lux/ | 'Lüge, lie' |
| [pūtə] | /puta/ | 'Butter, butter' |
| [sūf] | /suf/ | 'drunkenness' |

| | | |
|---|---|---|
| [pūš] | /puš/ | 'Busch, bush' |
| [lūs] | /lus/ | 'listen (imperat.sg.)' |

c) medially before resonant followed by a vowel, pause, or another resonant:

| | | |
|---|---|---|
| [tsūwə] | /tsuwa/ | 'Zuber, tub' |
| [šūɬ] | /šul/ | 'Schule, school' |
| [nūɬl̩] | /null/ | 'Nudel, noodle' |
| [špūɬn̩] | /špuln/ | 'Spule, reel' |

Contrast of /u/ with the other vowel phonemes:

| | | | |
|---|---|---|---|
| /u/ ≠ /i/ | [sūf] | /suf/ | 'drunkenness' |
| | [ksīf] | /ksif/ | 'inferior drink' |
| /u/ ≠ /e/ | [pūš] | /puš/ | 'Busch, bush' |
| | [pēš] | /peš/ | 'beige, beige' |
| /u/ ≠ /ɛ/ | [truk:ə] | /trukka/ | 'trocken, dry' |
| | [trɛk:ət] | /trɛkkat/ | 'dreckig, dirty' |
| /u/ ≠ /a/ | [sūf] | /suf/ | 'drunkenness' |
| | [sāf] | /saf/ | 'sauf, drink (imperat.sg.)' |
| /u/ ≠ /o/ | [lūx] | /lux/ | 'Lüge, lie' |
| | [lōx] | /lox/ | 'Loch, hole' |
| /u/ ≠ /å/ | [put:sn̩] | /puttsn/ | 'Butzen, apple-core' |
| | [påt:sn̩] | /påttsn/ | 'Batzen, lump' |

No contrastive pair was found for /u/ ≠ /ũ/ (see 4.2.11 on the status of /ũ/).

4.2.8 The /o/-phoneme has a short and a long allophone. [o] occurs initially and medially before long obstruents:

| | | |
|---|---|---|
| [ok:s] | /okks/ | 'Ochse, ox' |
| [koš:n̩] | /koššn/ | 'mouth (pejor.)' |
| [sos:] | /soss/ | 'Sosse, sauce' |
| [šop:m̩] | /šoppm/ | 'Schoppen, 1/4 liter' |
| [fot:sn̩] | /fottsn/ | 'face (pejor.)' |

[o̅] occurs

a) finally:

| | | |
|---|---|---|
| [so̅] | /so/ | 'so, so' |

b) initially and medially before short obstruent:

| | | |
|---|---|---|
| [o̅fə] | /ofa/ | 'Ofen, stove' |
| [so̅t] | /ksot/ | 'chaff' |
| [no̅s] | /nos/ | 'nass, wet' |
| [fo̅s] | /fos/ | 'Fass, barrel' |

c) initially and medially before resonant followed by a vowel, pause, short obstruent, or another resonant:

| | | |
|---|---|---|
| [o̅wə] | /owa/ | '(her)ab, down' |
| [kšo̅m] | /kšom/ | 'geschoben, pushed' |
| [šo̅n] | /šon/ | 'Schaden, damage' |
| [ro̅l̩t] | /rolt/ | 'rollt, rolls (3 sg.)' |
| [šno̅wl̩] | /šnowl/ | 'Schnabel, beak' |
| [što̅l̩l̩] | /štoll/ | 'Stadel, barn' |

Contrasts between /o/ and the other vowel phonemes:

| | | | |
|---|---|---|---|
| /o/ ≠ /i/ | [owə] | /owa/ | '(her)ab, down' |
| | [iwə] | /iwa/ | 'über, over' |
| /o/ ≠ /e/ | [kho̅tə] | /kkota/ | 'Kater, tomcat' |
| | [khe̅tə] | /kketa/ | 'Köter, cur' |
| /o/ ≠ /ɛ/ | [prox:ə] | /proxxa/ | 'gebrochen, broken' |
| | [prɛç:ə] | /prɛxxa/ | 'brechen, break' |
| /o/ ≠ /a/ | [lo̅n] | /lon/ | 'Laden, shop' |
| | [la̅n] | /lan/ | 'Läden, shops' |
| /o/ ≠ /u/ | [šlo̅s] | /šlos/ | 'Schloss, lock' |
| | [šlus] | /šlus/ | 'Schluss, end' |
| /o/ ≠ /å/ | [pok:ə] | /pokka/ | '(bocken), sulk' |
| | [påk:ə] | /påkka/ | 'packen, seize' |
| /o/ ≠ /õ/ | [kro̅t] | /krọt/ | 'gerade, straight' |
| | [kro̅̃t] | /krõt/ | 'crows (of babies)' |

4.2.9 The /å/-phoneme has a short and a long allophone.

[å] occurs

a) initially and medially before long obstruents:

| | | |
|---|---|---|
| [åk:ə] | /åkka/ | 'Acker, field' |
| [åp:fl] | /åppfl/ | 'Apfel, apple' |
| [åf:] | /åff/ | 'Affe, monkey' |
| [håk:ə] | /xakka/ | '(Hacke), axe' |
| [råt:sn] | /råttsn/ | 'Ratten, rats' |
| [flåš:n] | /flåššn/ | 'Flasche, bottle' |
| [lås:n] | /låssn/ | 'lassen, let' |

b) initially and medially before resonant + long obstruent:

| | | |
|---|---|---|
| [ål̪t:ə] | /åltta/ | 'Alter, age' |
| [ål̪p:m] | /ålppm/ | 'Alpen, Alps' |
| [khånt:n] | /kkånttn/ | 'Kante, edge' |
| [pflånt:sn] | /pflånttsn/ | 'Pflanze, plant' |
| [åmt:] | /åmtt/ | 'Amt, high mass' |
| [lånt:sə] | /lånttsa/ | 'Landser, common soldier' |

[a̅] occurs

a) finally (rare):

| | | |
|---|---|---|
| [nå̅] | /nå/ | 'nahe, near' |

b) medially before short obstruent (rare):

| | | |
|---|---|---|
| [lå̅xə] | /låxa/ | 'Lager, warehouse' |
| [må̅sən] | /måsan/ | 'Masern, measles' |
| [krå̅ft] | /kråft/ | 'Kraft, strength' |

c) initially and medially before resonant followed by vowel, pause, short obstruent, or another resonant:

| | | |
|---|---|---|
| [må̅l̪ə] | /måla/ | 'Maler, painter' |
| [tå̅l̪] | /tål/ | 'Teil, part' |
| [wå̅lt] | /wålt/ | 'Wald, wood' |
| [šå̅l̪n] | /šåln/ | '(Schale), cup' |

Contrasts between /å/ and the other vowel phonemes:

| | | | |
|---|---|---|---|
| /å/ ≠ /i/ | [wåk:sn̥] | /wåkksn/ | 'wachsen, grow' |
| | [wik:sn̥] | /wikksn/ | 'wichsen, shine (shoes)' |
| /å/ ≠ /e/ | [påk:ə] | /påkka/ | 'packen, seize' |
| | [pek:ə] | /pekka/ | 'Bäcker, baker' |
| /å/ ≠ /ɛ/ | [fåt:ə] | /fåtta/ | 'Vater, father' |
| | [fɛt:ə] | /fɛtta/ | 'fetter, fatter' |
| /å/ ≠ /a/ | [štrås:] | /štråss/ | 'Strasse, street' |
| | [štras:l̥] | /štrassl/ | 'Sträss(chen), street (dimin.)' |
| /å/ ≠ /u/ | [påp:m̥] | /påppm/ | 'pappen, paste' |
| | [pup:m̥] | /puppm/ | 'Puppe, doll' |
| /å/ ≠ /o/ | [påk:ə] | /påkka/ | 'packen, seize' |
| | [pok:ə] | /pokka/ | '(bocken), sulk' |
| /å/ ≠ /ã/ | [hå̄ɬ] | /xal/ | 'Halle, hall' |
| | [hå̄ɬl̥] | /xãll/ | 'Handel, deal' |

4.2.10 The nasalized vowels.

All nasalized vowels are long. The degree of nasalization is slight. Nasalized vowels are largely in complementary distribution with their long oral counterparts since they usually occur before nasal consonants. However, a few contrasts can be established in the form of minimal or near-minimal pairs, since non-nasalized vowels may also occur before nasal consonants, and nasalized vowels may occur in morpheme-final position. Thus, nasalized vowels are technically phonemic, although their distribution is mostly non-contrastive and their functional load small.[119] Since minimal pairs are difficult to find, only contrasts between nasalized and their non-nasalized counterparts will be listed in the following.

4.2.11 Contrasts between nasalized vowels and their non-nasalized counterparts:

| | | | |
|---|---|---|---|
| /ĩ/ ≠ /i/ | [l̃ĩn] | /lĩn/ | '(lind), soft' |
| | [klīn] | /klin/ | 'gelitten, suffered' |
| /ẽ/ ≠ /e/ | [r̃ẽn] | /rẽn/ | 'renn, run (imperat.sg.)' |
| | [rēn] | /ren/ | 'reden, speak' |
| /ã/ ≠ /a/ | [w̃ã̤l] | /wãll/ | '(Wännlein), tub (dimin.)' |
| | [wā̤l] | /wall/ | 'Wade, calf (part of leg)' |
| /õ/ ≠ /o/ | [kr̃õt] | /krõt/ | 'crows (of a baby)' |
| | [krōt] | /krot/ | 'gerade, straight' |
| /å̃/ ≠ /å/ | [h̃å̤l] | /xå̃ll/ | 'Handel, deal' |
| | [hå̤] | /xål/ | 'Halle, hall' |

The phoneme /ɛ/ lacks a corresponding nasalized phoneme. It is also the only vowel phoneme that lacks a long allophone (aside from [ɛ̄tš] for which see 4.2.5). /u/ has a corresponding nasalized vowel [ũ] but no contrastive environment has been found to establish it as a phoneme. On the basis of the phonemic pattern it may be expected to be of the same rank as the other nasalized vowels which have been shown to be phonemic. On the basis of pattern congruity (see 4.2.1b) [ũ] is tentatively considered to be /ũ/ in the absence of more convincing evidence.[120] For further examples of nasalized vowels see 4.1.21-26.

4.2.12 The diphthongs.

Nine diphthong phonemes are found in the dialect, five of which are closing: /ɛi/ /ai/ /ɔi/ /ɔu/ /åu/, and four centering: /ia/ /ea/ /ua/ /oa/ (for examples see 4.1.27-32).

4.2.13 The /ɛi/ diphthong contrasts with all other diphthong phonemes:

| | | | |
|---|---|---|---|
| /ɛi/ ≠ /ai/ | [pɛi̯s:n̩] | /pɛissn/ | 'büssen, pay for (atone)' |
| | [pai̯s:n̩] | /paissn/ | 'beissen, bite' |
| /ɛi/ ≠ /ɔi/ | [prɛi̯t:n̩] | /prɛittn/ | 'brüten, hatch' |
| | [prɔi̯t:n̩] | /prɔittn/ | '(aus)breiten, spread' |
| /ɛi/ ≠ /ɔu/ | [khɛi̯] | /kkɛi/ | 'Kühe, cows' |
| | [khɔu̯] | /kkɔu/ | 'Kuh, cow' |
| /ɛi/ ≠ /åu/ | [krɛi̯t] | /krɛit/ | 'entryway' |
| | [kråu̯t] | /kråut/ | 'Kraut, cabbage' |
| /ɛi/ ≠ /ia/ | [mɛi̯] | /mɛi/ | 'Mühe, effort' |
| | [miə̯] | /mia/ | 'mir, me (dat.)' |
| /ɛi/ ≠ /ea/ | [mɛi̯] | /mɛi/ | 'Mühe, effort' |
| | [meə̯] | /mea/ | 'mehr, more' |
| /ɛi/ ≠ /ua/ | [fɛi̯ç] | /fɛix/ | 'Vieh, cattle' |
| | [fuə̯ç] | /fuax/ | 'Furche, furrow' |
| /ɛi/ ≠ /oa/ | [hɛi̯t:] | /xɛitt/ | 'hütet, watches' |
| | [hoə̯t:] | /xoatt/ | 'hart, hard' |

4.2.14 Contrasts between /ai/ and the other diphthong phonemes:

/ai/ ≠ /ɛi/ see 4.2.13 above.

| | | | |
|---|---|---|---|
| /ai/ ≠ /ɔi/ | [trai̯] | /trai/ | 'treu, faithful' |
| | [trɔi̯] | /trɔi/ | 'Getreide, grain' |
| /ai/ ≠ /ɔu/ | [khai̯t] | /kkait/ | 'throws' |
| | [khɔu̯t] | /kkɔut/ | 'Kot, dirt' |
| /ai/ ≠ /åu/ | [mai̯s] | /mais/ | 'Mäuse, mice' |
| | [måu̯s] | /måus/ | 'Maus, mouse' |
| /ai/ ≠ /ia/ | [rai̯t] | /rait/ | 'reut, is sorry' |
| | [riə̯t] | /riat/ | 'rührt, stirs' |
| /ai/ ≠ /ea/ | [kšai̯t] | /kšait/ | 'gescheit, intelligent' |
| | [kšeə̯t] | /kšeat/ | 'gesch(o)r(en), boorish' |

/ai/ ≠ /ua/ [taɪ̯t:n̩] /taittn/ 'deuten, point'
[tuɐ̯t:n̩] /tuattn/ 'Torte, (fancy) cake'

/ai/ ≠ /oa/ [aɪ̯s] /ais/ 'Eis, ice'
[oɐ̯s] /oas/ 'Eiss, boil'

4.2.15 Contrasts between /ɔi/ and the other diphthong phonemes:

/ɔi/ ≠ /ɛi/ see 4.2.13 above.

/ɔi/ ≠ /ai/ see 4.2.14 above.

/ɔi/ ≠ /ɔu/ [hɔɪ̯t:sət] /xɔittsat/ '(ich würde) heizen, (I would) heat'
[hɔʊ̯tsət] /xɔutsat/ 'Hochzeit, wedding'

/ɔi/ ≠ /åu/ [trɔɪ̯] /trɔi/ 'Getreide, grain'
[trå͡ʊ̯] /tråu/ '(ich) traue, trust'

/ɔi/ ≠ /ia/ [ɔɪ̯t:ə] /ɔitta/ 'Euter, udder'
[iɐ̯t:ə] /iatta/ 'Tuesday'

/ɔi/ ≠ /ea/ [hɔɪ̯t:sn̩] /xɔittsn/ 'heizen, heat'
[heɐ̯t:sn̩] /xeattsn/ 'Herzen, hearts'

/ɔi/ ≠ /ua/ [wɔɪ̯t:s] /wɔitts/ 'Weizen, wheat'
[wuɐ̯t:sl̩] /wuattsl/ 'Wurzel, root'

/ɔi/ ≠ /oa/ [šɔɪ̯t:n̩] /šɔittn/ 'bark (tree)'
[šoɐ̯t:n̩] /šoattn/ 'Scharte, notch'

4.2.16 Contrasts between /ɔu/ and the other diphthong phonemes:

/ɔu/ ≠ /ɛi/ see 4.2.13 above.

/ɔu/ ≠ /ai/ see 4.2.14 above.

/ɔu/ ≠ /ɔi/ see 4.2.15 above.

/ɔu/ ≠ /åu/ [mɔʊ̯s] /mɔus/ 'Mus, mush'
[måʊ̯s] /måus/ 'Maus, mouse'

/ɔu/ ≠ /ia/ [pɔʊ̯x] /pɔux/ 'Buch, book'
[(ke)píɐ̯ç] /(ke)píax/ 'Gebirge, mountains'

| | | | |
|---|---|---|---|
| /ɔu/ ≠ /ea/ | [khɔu̯t] | /kkɔut/ | 'Kot, dirt' |
| | [khe̯at] | /kkeat/ | 'gehört, belongs' |
| /ɔu/ ≠ /ua/ | [pɔu̯x] | /pɔux/ | 'Buch, book' |
| | [pue̯ç] | /puax/ | 'Burg, castle' |
| /ɔu/ ≠ /oa/ | [klɔu̯t] | /klɔut/ | 'Glut, live coal' |
| | [klo̯at] | /kloat/ | 'Kleid, dress' |

4.2.17 Contrasts between /åu/ and the other diphthong phonemes:

/åu/ ≠ /ɛi/ see 4.2.13 above.

/åu/ ≠ /ai/ see 4.2.14 above.

/åu/ ≠ /ɔi/ see 4.2.15 above.

/åu/ ≠ /ɔu/ see 4.2.16 above.

| | | | |
|---|---|---|---|
| /åu/ ≠ /ia/ | [hå̯us] | /xåus/ | 'Haus, house' |
| | [hie̯s] | /xias/ | 'Hirse, millet' |
| /åu/ ≠ /ea/ | [på̯ux] | /påux/ | 'Bauch, belly' |
| | [pe̯ç] | /peax/ | 'Berg, mountain' |
| /åu/ ≠ /ua/ | [på̯ux] | /påux/ | 'Bauch, belly' |
| | [pue̯ç] | /puax/ | 'Burg, castle' |
| /åu/ ≠ /oa/ | [tå̯ux] | /tåux/ | '(ich) tauge, I am fit' |
| | [to̯ç] | /toax/ | 'Teig, dough' |

4.2.18 Contrasts between /ia/ and the other diphthong phonemes:

/ia/ ≠ /ɛi/ see 4.2.13 above.

/ia/ ≠ /ai/ see 4.2.14 above.

/ia/ ≠ /ɔi/ see 4.2.15 above.

/ia/ ≠ /ɔu/ see 4.2.16 above.

/ia/ ≠ /åu/ see 4.2.17 above.

| | | | |
|---|---|---|---|
| /ia/ ≠ /ea/ | [pie̯] | /pia/ | 'Bier, beer' |
| | [pe̯] | /pea/ | 'Bär, bear' |

| | | | |
|---|---|---|---|
| /ia/ ≠ /ua/ | [wiə̯šst] | /wiašt/ | 'Würste, sausages' |
| | [wuə̯šst] | /wuašt/ | 'Wurst, sausage' |
| /ia/ ≠ /oa/ | [tiə̯] | /tia/ | 'Tür, door' |
| | [toə̯] | /toa/ | 'Tor, gate' |

4.2.19 Contrasts between /ea/ and the other diphthong phonemes:

/ea/ ≠ /ɛi/ see 4.2.13 above.

/ea/ ≠ /ai/ see 4.2.14 above.

/ea/ ≠ /ɔi/ see 4.2.15 above.

/ea/ ≠ /ɔu/ see 4.2.16 above.

/ea/ ≠ /åu/ see 4.2.17 above.

/ea/ ≠ /ia/ see 4.2.18 above.

| | | | |
|---|---|---|---|
| /ea/ ≠ /ua/ | [peə̯ç] | /peax/ | 'Berg, mountain' |
| | [puə̯ç] | /puax/ | 'Burg, castle' |
| /ea/ ≠ /oa/ | [teə̯f] | /teaf/ | 'darf, (I) am allowed' |
| | [toə̯f] | /toaf/ | 'Dorf, village' |

4.2.20 Contrasts between /ua/ and the other diphthong phonemes:

/ua/ ≠ /ɛi/ see 4.2.13 above.

/ua/ ≠ /ai/ see 4.2.14 above.

/ua/ ≠ /ɔi/ see 4.2.15 above.

/ua/ ≠ /ɔu/ see 4.2.16 above.

/ua/ ≠ /åu/ see 4.2.17 above.

/ua/ ≠ /ia/ see 4.2.18 above.

/ua/ ≠ /ea/ see 4.2.19 above.

| | | | |
|---|---|---|---|
| /ua/ ≠ /oa/ | [tuə̯ç] | /tuax/ | 'durch, through' |
| | [toə̯ç] | /toax/ | 'Teig, dough' |

4.2.21 Contrasts between /oa/ and the other diphthong phonemes can be found under 4.2.13-20.

4.2.22 Nasalized diphthongs. Three nasalized diphthongs are found to contrast with their oral correspondents: /ɛ̃i/ /õa/ /ɔ̃u/.

| | | | |
|---|---|---|---|
| /ɛ̃i/ ≠ /ɛi/ | [khɛ̃i̯] | /kkɛ̃i/ | 'Kien, resinous kindling' |
| | [khɛi̯] | /kkɛi/ | 'Kühe, cows' |
| /ɛ̃i/ ≠ /ai/ | [wɛ̃i̯] | /wɛ̃i/ | 'Wein, wine' |
| | [wai̯] | /wai/ | 'Weib, woman' |
| /õa/ ≠ /oa/ | [põo̯] | /põa/ | '(Bein), bone' |
| | [poo̯] | /poa/ | 'Paar, pair' |
| | [štõo̯l̩] | /štõall/ | 'Stein(chen), stone (dimin.)' |
| | [štoo̯l̩] | /štoall/ | 'Star, starling' |
| /õu/ ≠ /ɔu/ | [tsɔ̃u̯] | /tsõu/ | 'Zaun, fence' |
| | [tsɔu̯] | /tsɔu/ | 'zu, shut (adv.)' |

4.2.23 Word stress.

Stress in this dialect is essentially the same as in standard German and will therefore not be dealt with exhaustively.

Three degrees of stress are found on the word level: primary stress, secondary stress, and weak stress. Primary stress is indicated here by an acute accent on the stressed vowel, secondary stress by a grave accent; weak stress is unmarked. All three stresses are seen in words like

| | |
|---|---|
| /tréššmašìn/ | 'Dreschmaschine, threshing machine' |
| /fénstalàn/ | 'Fensterläden, window shutters' |
| /kkíntawòŋ/ | 'Kinderwagen, babybuggy' |
| /kkélafènsta/ | 'Kellerfenster, basement window' |

While these three stresses can be clearly heard, it is difficult to establish them as contrastive stress phonemes.

Primary stress usually occurs on the first syllable of words. Examples of words not carrying initial primary stress are:

| | |
|---|---|
| /kkatár/ | 'Katarrh, cold' |
| /bifé/ | 'Büfett, sideboard' |
| /tawák/ | 'Tabak, tobacco' |
| /kkåfé/ | 'Kaffee, coffee' |
| /mašín/ | 'Maschine, machine' |
| /kkåpútt/ | 'kaputt, broken' |
| /salót/ | 'Salat, salad' |
| /krawáttn/ | 'Krawatte, tie' |
| /motóa/ | 'Motor, motor' |
| /minstrántt/ | 'Ministrant, altar boy' |
| /musikkánt/ | 'Musikant, bandsman' |
| /friséa/ | 'Friseur, barber' |
| /tašlóŋ/ | 'erschlagen, slay' |
| /fatséln/ | 'erzählen, tell' |
| /tarẽna/(reflex.) | '(errennen), smash up)' |
| /fakáffa/ | 'verkaufen, sell' |
| /fasáffa/ | 'versaufen, spend on drink' |

Very few minimal or near-minimal pairs can be found:

| | |
|---|---|
| /bifé/ | 'Büfett, sideboard' |
| /bíffl/ | '(Büffel), boor' |
| /até/ | 'adieu, farewell' |
| /åte/ | 'Ade, short for Adolf' |
| /åukúst/ | 'August, August (month)' |
| /áukust/ | 'August (name)' |

This scarcity of minimally contrastive pairs points to the low functional load that is carried by stress in this dialect. The above examples establish a contrast between

primary stress and weak stress. A third contrast can be found only by going beyond the word level to include noun phrases. Here we find a contrast

| | | |
|---|---|---|
| between | /kélwerɔ̀um/ | 'Karotten, carrots' |
| and | /kèlwe rɔ́um/ | 'yellow beets'; |
| between | /pláukràut/ | 'Blaukraut, red cabbage' |
| and | /plàus kráut/ | 'blaues Kraut, blue cabbage' |

In the above examples the alternation in stress patterns signals the difference between compound words (/kélwerɔ̀um/, /pláukràut/) and sequences of words which form syntactic units (constructions).

Compound nouns follow these main stress patterns:

a) ´ ` as in:

| | |
|---|---|
| /ǽppflpɛ̀im/ | 'Apfelbäume, appletrees' |
| /štólltoà/ | 'Stadeltor, barn door' |
| /mélkkšàml/ | 'Melkschemel, milking stool' |
| /háustìa/ | 'Haustür, front door' |
| /wíšpàm/ | 'pole on top of loaded hay wagon' |
| /ɔ́awàšl/ | 'Ohr, ear' |
| /kkópftɛ̀ixxl/ | 'Kopftuch, kerchief (dimin.)' |
| /pláukràut/ | 'Blaukraut, red cabbage' |

b) ´—` (= primary + weak + secondary stress)

| | |
|---|---|
| /kkíntawòŋ/ | 'Kinderwagen, baby buggy' |
| /fénstalàn/ | 'Fensterläden, window shutters' |
| /kkiáxatìa/ | 'Kirchentür, church door' |
| /šnótahìppfl/ | 'singing that calls for humorous ad-libbing to a standard tune' |

c) -´`(-) (= weak + primary + secondary stress)

| | |
|---|---|
| /salátèl/ | 'Salatöl, salad oil' |
| /towáktòsn/ | 'Tabakdose, tobacco box' |
| /kkáfékàna/ | 'Kaffeekanne, coffee-pot' |

4.2.24 Pitch and juncture.

Phonemic pitch exists only on the phrase and sentence level and is therefore more properly a part of syntax.

No junctural phenomena appear to be relevant in this dialect. The feature of open juncture which W. G. Moulton[121] found to be phonologically marked in standard German cannot be readily identified in the dialect. In standard German the words 'sagbar' and 'biegsam' occur as /zāk + bār/, /bīk + zām/ if separated by open juncture. If open juncture becomes closed in the standard language, the phonological result in /zākpār/, /bīksām/. Since the dialect knows no voiced/voiceless contrast, juncture cannot be signaled in this way. A further phonological marker of open juncture in standard German is aspiration of initial consonant, e.g., /an + $t^h$rāt/ 'antrat' vs. /lant + rāt/ 'Landrat'. The dialect has no aspirated stops (except [kh]) and thus cannot use aspiration as a sign of open juncture. Glottal stoppage is known to signal open juncture in the standard language, e.g., /fer + ʔain/ 'Verein'. But the dialect has no glottal stops that might serve as juncture markers in prevocalic word- or syllable-initial position. The role of stress in determining word boundaries has been alluded to in 4.2.23 above.

## NOTES

1) The now ruined castle of Laaber (modern spelling of the town) was the ancestral home of the Lords of Laber, who included a late Minnesänger among their number. Hadamar von Laber, whose allegoric poem "Die Jagd" has survived in numerous manuscripts, wrote in the first third of the 14th century. The precise date of "Die Jagd" is not known. The lineage of the Lords of Laber became extinct in 1475 with the death of Hadmar von Laber, Domdechant at Salzburg. The once wealthy and powerful family had suffered great reverses. In 1435 Caspar von Laber sold his ancestral castle to Duke Heinrich von Landshut. Caspar's nephew Sebastian von Laber was later captured as a highwayman. He died of his wounds in prison. At the news of his death an angry mob was barely prevented from mutilating his corpse in public. The village of Bergstetten had been among the holdings of the Lords of Laber. It was later acquired by the Lords of Eggelkraut. In 1627 it became a Landsassengut on which personally free farmers worked the lord's land. In 1626 the local lord had obtained the "lesser jurisdiction" (excludes capital offenses) and the right to catch birds ("Vogelherd und Vogelfang") (according to Bavaria, 1860-68:2.507, fn. 2). To this day the family occupying the former manor house bears the house-name Vogl, quite likely a reflexion of the privilege the lord formerly possessed (from Vogler 'bird catcher').

2) A possibly pre-Celtic layer of place names and river names, mainly to the southeast, is attributed to an earlier Illyrian population. Cf. Schwarz, 1949-50: 2.102-108; Krahe, 1955- : vol.1.

3) It is not always clear whether such words were borrowed from Celtic or whether they stem from an earlier "Germano-Italo-Celtic" or "Old European" community, as suggested by Krahe, 1954: 63-71.

4) Not so Trier, 1943. According to him the change rig > rik is due to analogy with the Gmc. 'Hegesippe' *reg. He sees a semantic connection between 'Einhegung' (enclosure) and 'rule, power'. Polenz, 1956, disputes the Celtic origin of the word, placing it in ablaut relation to Gmc. *raikjan 'reach'. The meaning 'power' then emerges from 'Bereich, that which extends' (dimensions of land, power).

5) Festus confirms the Celtic origin of the word: "ambactus apud Ennium lingua Gallica servus appellatur." See Kluge, 1963: s.v. Amt. Caesar in De Bello Gallico vi. 15 reports that wealthy Gauls surround themselves with "ambactos clientesque".

6) No credible correspondences exist for this word in other IE languages.

7) Schwarz, 1949-50: 2.111. A similar concentration of -acum place names is found in Southern France. In Northern France the same type occurs ending in -ai and -i. Thus 'place of Julius' *juli-acus has three known developments: Jülich (Rhineland), Juilly (Northern France), Juillac (Southern France). Also Savigny in the North vs. Savignac in the South. Also Cognac, Bergerac, Issigeac. (Wartburg, 1946: 15.)

8) Schwarz, 1949-50: 2.108-110.

9) Claudius Ptolemaeus quoted by Schwarz, 1949-50: 2.110. An interpretation of Claudius Ptolemaeus' (85-160 A.D.) geographic description of Germany is fraught with difficulties. His work is largely based on material collected by Marinus of Tyrus (early 2nd century A.D.) in his

Διώρθωσις τοῦ γεωγραφικοῦ πίνακος. Pliny, Tacitus, and the reports of Roman traders furnished most of the information which he often accepted uncritically. Thus the town Siatutanda has proved to be nothing but the result of a whimsical reading of Tacitus "ad sua tutanda" (Germania iv. 73). Cf. Schmidt, 1902. (Cf. Maps 3 and 4, n. 16.)

10) Hubensteiner, 1952: 18.

11) Doeberl, 1916-31: 1.2.

12) Doeberl, 1916-31: 1.2.

13) Caesar in De Bello Gallico states that the Boii had crossed the Rhine (from Gaul) to settle in Noricum (see 1.2.3): "Persuaderunt Ramicis et Tulingis et Latobrigis finitimis uti eodem usi consilio . . . Boiosque, qui trans Rhenum incoluerant et in agrum Noricum transierant Noreiam oppugnabant, receptos ad se socios adsciscunt." (i. 5). The Boii thus joined the Helvetian expedition into Gaul. After meeting with defeat at the hands of the Romans, the Boii were granted permission to settle in Gaul. One of their cities is mentioned as Gorgobina: " . . . Gorgobinam Boiorum oppidum quos ibi Helvetico proelio victos Caesar conlocaverat Haeduisque attribuerat oppugnare instituit." (vii. 9).

14) Doeberl, 1916-31: 1.3.

15) An example of such a "Stammesverband" could be seen in the Iroquois league which united the Mohawk, Oneida, Onondaga, Cayuga, and Seneca tribes in New York state.

16) Ptolemaeus' maps according to Schmidt, 1902: 84-85 (A-B). (See Maps 3 and 4.)

A: Gabreta silva : Böhmerwald
Melibocus m. : Harz
Semanus silva : Thuringian Forest
(Baimoi--describes area not people)

B: smaller scale and probably of a later period.

The two maps are found as one in Ptolemaeus who must have combined them into one despite the difference in scale. As a result the home of the Bavarians is shown twice under different names. Schmidt claims B to be later, the evidence of the names Baimoi vs. Baiochaimai would indicate B to be earlier. (Cf. n. 9.)

17) Schönfeld, 1911.

18) Schönfeld, 1911.

19) Hubensteiner, 1952: 20.

20) The Gmc. *walhos is believed to derive from the name of the Volcae, a Celtic tribe in Gaul. The derived form *walhisk later designated any non-Germanic neighbors: OHG walhisc 'Roman, Latin' (MHG wel(hi)sch), OE wielisc 'Celtic, Norman', ON valskr 'Roman'. Cf. Weisgerber, 1948.

21) Hubensteiner, 1952: 21.

22) Hubensteiner, 1952: 22.

23) Hubensteiner, 1952: 24.

24) Meinel, 1932: 10.

25) In the Diedenhofer Capitulary of 805 Charlemagne defines the north-eastern limits of Frankish trade with the Slavs and Avars. Premberg is mentioned along with Forchheim, Regensburg, and Lorch on the Danube, as border cities beyond which Frankish traders were not allowed to journey (see Map 5). Meinel, 1932: 9.

26) Doeberl, 1916-31: 1.8; Schwarz, 1960: 55: "Das grösste -ing- Namengebiet in Nordostbayern liegt um Regensburg und zwar viel mehr auf dem südlichen als auf dem nördlichen Ufer der Donau . . . "; Hubensteiner, 1952: 19.

27) The above paragraph according to Meinel, 1932: 10-11.

28) Meinel, 1932: 181.

29) Meinel's view hinges on the fact that the DSA (Map 12 'Bruder') shows North Bavarian to be the only Southern dialect showing [oụ̯] for *o̅. Since [oụ̯] is also found in Hesse he tries to find historical evidence to support the view of Hessians having settled North Bavaria. This evidence is very slim.

30) Der Renner by Hugo von Trimberg provides an interesting though obscure characterization of late 13th century dialects. Among the twelve dialects he singles out, five would now be classified as Bavarian: Bavarian, Egerländisch (North Bavarian), Austrian (Central Bavarian), Styrian (South Bavarian), Carinthian (South Bavarian). The Egerland dialect mentioned by Trimberg represents North Bavarian which at his time must have been felt to be clearly distinct from other Bavarian dialects. The interpretation of the popularly worded description is not clear:

Swabe ir wörter spaltent
. . . . . .
Die Baire si zezerrent
. . . . . .
Egerlant si swenket
Osterriche si schrenket
Stirlant si baz lenket
Kernte ein teil se senket
. . . . . .

(Der Renner 22.253ff. as quoted by Bach, 1965: 131.)
Could the comment about Bavarian refer to lengthening of vowels in unstressed syllables? Is the characteristic of Austrian the running together of words ("verschränken")? Could Egerländisch (North Bavarian) swenken refer to the reversal of Bavarian diphthongs /ua/ >/ou/ and /ia/ >/ei/? Whatever the interpretation, the significance of the passage lies in the separate mention of a North Bavarian dialect as different from other Bavarian dialects.

31) Martin, 1959: 150-51.

32) The reference is to Karl Weinhold, Bairische Grammatik, Berlin, 1867.

33) Brenner, 1890: 57, fn.

34) Brenner, 1890: 59, fn.

35) Cf. Kranzmayer, 1960.

36) Kranzmayer, 1960: 19-41, brings evidence against the view that the influx of Gothic vocabulary followed the Danube route. He argues for borrowing across the Alps since he finds corresponding forms in adjacent Romance dialects. For special investigations see Kluge, 1909; Kranzmayer, 1929; Aufderhaar, 1933; Reiffenstein, 1958 (Reviewed by W. H. Bennett in Language 35.703-705); Löwe, 1949; Mitscha-Märheim, 1950; Schwarz, 1953 and 1956.

37) Weinhold, 1867: 367; Schirmunski, 1962: 524.

38) Doeberl, 1916-31: 1.8.

39) According to Bachmann, 1925. Included are early forms of names and dates when first attested. Archaeological research has pinpointed the location of Slavic burial grounds near Burglengenfeld, Neustadt a.d. Waldnaab, Eschenbach, Amberg (p.33).

40) Bachmann, 1925: 63-65.

41) The conclusions are somewhat weakened by the author's satisfaction at having shown how minimal and subordinated was the role of the Slavs in the history of North Bavaria. The reader cannot escape the suspicion that the author was not free of a certain amount of anti-Slavic sentiment. For a purely factual account of the Slavic evidence in North Bavaria without any historical interpretation see Schwarz, 1960. The book contains a large number of maps showing non-Germanic place names, river names, burial sites, fortifications, etc.

42) The historical facts in the following are drawn from the article "Bayern" in Der Grosse Brockhaus, 1952: 1.

43) Cf. Westermanns Atlas zur Weltgeschichte, 1963: vol. 3, maps 104-105.

44) Quotes according to Schirmunski, 1962: 56.

45) Socin, 1888: 337.

46) Socin, 1888: 374.

47) This was the first of a number of "Idiotika" of German dialects. Others are: M. Richey, Idioticon Hamburgense, Hamburg, 1743; 2nd ed., 1755; Versuch eines bremisch-niedersächsischen Wörterbuches, ed. by the Bremisch Deutsche Gesellschaft, Bremen, 5 vols., 1767-71. Instructions on how to collect dialect words are given by J. L. Frisch in Entwurf was für Wörter in jeder Provinz und Gegend in Teutschland, sonderlich in der Mark Brandenburg zu sammeln sind, 1736. A kind of comparative dialect dictionary was published in Austria by J. S. V. Popowitsch: Versuch einer Vereinigung der Mundarten von Teutschland als eine Einleitung zu einem vollständigen Teutschen Wörterbuch, Vienna, 1780.

48) Stalder, 1806-1812.

49) Schmeller, 1821. According to Schirmunski, 1962: 59, the book was completed but not published before Grimm's Deutsche Grammatik appeared. Schmeller's conclusions were reached independently. His published version of the book was revised on the basis of Grimm's work. Schmeller's grammar was followed by a lexical work on Bavarian, 1827-37. Another (South) Bavarian lexical work appeared later: Lexer, 1862.

50) It is of interest in this context to note the position taken by V. M. Schirmunski, 1966: 5-6, in a recent article on comparative linguistics. He calls for more historical

studies of modern dialects, which will allow the comparativist to observe long-term trends in languages and groups of languages: "In die historisch-vergleichende Untersuchung müssen auch die Dialekte der betreffenden Sprachen einbezogen werden, in denen als der gesprochenen Umgangssprache des Volkes die Entwicklungstendenzen dieser Sprachen am unmittelbarsten, konsequentesten und ungehindertsten, d.h. ungehemmt durch eine feste (konservative) schriftsprachliche Norm realisiert werden. Die Erforschung der Dialekte auf den verschiedenen Stufen ihrer historischen Entwicklung von den Anfängen bis in die Gegenwart stellt einen nicht weniger notwendigen Teil der historisch-vergleichenden Forschung dar als die historisch-vergleichende Untersuchung der schriftlich überlieferten alten Sprachen, da diese ja ihrer Entstehung nach ursprünglich ebenfalls gesprochene volkssprachliche Dialektformen der Grundsprache waren."

51) K. Weinhold, Über deutsche Dialektforschung: Die Laut- und Wortbildung und die Formen der schlesischen Mundart, Wien, 1853. Also: Beiträge zu einem schlesischen Wörterbuche, Wien, 1855; Grammatiken der deutschen Mundarten: 1. Alemannische Grammatik, 1863, 2. Bayrische Grammatik, 1867; Mittelhochdeutsche Grammatik, 1877 (well-known for dialect material).

52) Müllenhoff, 1964: preface.

53) For an article revealing a complete range of methods and the arduous nature of such work see Penzl, 1964; also Fleischer, 1965.

54) Wagner, 1927: 1.

55) Martin, 1959: 138.

56) Here are some samples of Wenker's sentences:

1. Im Winter fliegen die trockenen Blätter durch die Luft herum.

5. Er ist vor vier oder sechs Wochen gestorben.
13. Es sind schlechte Zeiten.
26. Hinter unserm Haus stehen drei schöne Apfelbäumchen mit roten Äpfelchen.
30. Wieviel Pfund Wurst und wieviel Brot wollt ihr haben?
37. Die Bauern hatten fünf Ochsen und neun Kühe und zwölf Schäfchen vor das Dorf gebracht, die wollten sie verkaufen.
38. Die Leute sind alle draussen auf dem Felde und mähen.
40. Ich bin mit den Leuten da hinten über die Wiese ins Korn gefahren.
(DSA: Text.15-16)

57) For the effects of the resulting inaccuracies and inconsistencies on the ultimate version of the published atlas see 2.2.2.

58) Ultimately some 52,800 returns of the 40 "Wenkersätze" were received. Among the more recent returns some were completed in phonetic transcription, reflecting the spread of linguistic training among the interviewers (Bach, 1950: 41).

59) Cf. Bach, 1950: 39: "In dem in den 1870er und 80er Jahren mit besonderer Heftigkeit geführten Kampf um die Ausnahmslosigkeit der Lautgesetze machte sich die Notwendigkeit immer stärker fühlbar, den Streit durch praktisch-induktive Untersuchung der Sprache zur Entscheidung zu bringen. . . . Für den Beweis konnte man nur die allseitige Umschau gestattende, natürlich entwickelte lebende Sprache der Gegenwart, die Mundarten, die notwendige breite Grundlage, das erwünschte lückenlose Material zur Verfügung stellen."

60) Georg Wenker's native city of Düsseldorf was ideally located for the study of the most famous isogloss, the Benrather Linie and the well-known Ürdinger Linie. The Benrather Linie derives its name from the city of Benrath, the point at which the machen/maken isogloss crosses the Rhine (south of Düsseldorf). The Ürdinger Linie is named

for the town of Ürdingen, near which the ich/ik line crosses the river (north of Düsseldorf). Wenker investigated the reflexes of the Old High German consonant shift along the borderline between High German and Low German in connection with his doctoral thesis: Über die Verschiebung des Stammsilbenauslauts im Germanischen, Tübingen, 1876.

61) DSA: Text.10.

62) 1650 hand-drawn maps at the scale of 1:1,000,000 were completed by 1950. Each map contains three parts, one each for North-East, North-West, and South Germany. Of these completed maps 128 have appeared in printed form, most of them reduced to a scale of 1:2,000,000, as the DSA. The unpublished collection was housed in the Zentralstelle für den Sprachatlas des Deutschen Reiches und deutsche Mundartforschung at Marburg a.d. Lahn (Bach, 1950: 40). This organization has since been replaced by the Forschungsinstitut für deutsche Sprache "Deutscher Sprachatlas" an der Philipps-Universität Marburg under the direction of L. E. Schmitt. Wenker's maps were not the first dialect maps ever to be drawn. According to Martin, 1959: 138, the first dialect map was drawn by a Kassel librarian by the name of Karl Bernhardi in 1844.

63) Some of G. Wenker's other works on dialectology include: Das rheinische Platt, Düsseldorf, 1877, reprinted in Deutsche Dialektgeographie 8 (1915); "Herrn Brenners Kritik zum Sprachatlas," in Der Sprachatlas des Deutschen Reiches, Dichtung und Wahrheit, Marburg, 1895. About Wenker: F. Wrede, "Georg Wenker," Deutsche Dialektgeographie 5.5-9 (1913); B. Martin, "Georg Wenkers Kampf um seinen Sprachatlas (1875-1889)," Deutsche Dialektgeographie 21.1-37 (1934);

64) The volume of plates is accompanied by a one-volume text containing detailed information on each map, pointing

out difficulties of interpretation, spellings used by the interviewers. This title appears on original title-page.

65) Author of Handbuch zum deutschen Sprachatlas, 1952. Together with L. E. Schmitt he is the editor of Deutscher Wortatlas, 1951- .

66) The checkerboard distributional patterns of many dialect features which startled Wenker were first examined in a systematic manner by Theodor Frings in the 1920's. Using the methods developed by Romance dialectologists, he related the incidence of dialect characteristics of the Rhineland (and later of East Germany) to geographic phenomena. A small selection of his works includes: "Das Alter der Benrather Linie," Beiträge, 39.362-376 (1914); "Mittelfränkische Studien: I Das ripuarisch-niederfränkische Übergangsgebiet," Beiträge, 41.193-271 (1916); "II Zur Geschichte des Niederfränkischen," Beiträge, 42.177-248, 562 (1917); "Rheinische Sprachgeschichte," in Geschichte des Rheinlands, hrsg. von der Gesellschaft für rheinische Geschichtskunde, Essen, 1922: 2.251-98; Sprache und Siedlung im mitteldeutschen Osten, Leipzig, 1932; Grundlegung einer Geschichte der deutschen Sprache, Halle, 1948; together with H. Aubin, J. Müller, Kulturströmungen und Kulturprovinzen in den Rheinlanden, Bonn, 1926; together with G. Lerchner, Niederländisch und Niederdeutsch: Aufbau und Gliederung des Niederdeutschen, Berlin, 1966.

67) F. Wrede occasionally uses asterisked forms as a shorthand notation for "forms of the type", which do represent a previous common stage. This technique is only a matter of convenience in labeling, the historical information being merely incidental, e.g., bin vs. *sī, i.e., some phonetic variant derivable from a type sī.

68) A complete list of all towns and villages along the Ürdinger line according to the 1880 atlas material is given by Martin, 1959: 140-42.

69) The fact that the maken/machen isogloss crosses the Rhine some 30 km. south of the ik/ich line gives rise to such transition forms as ich make. This is one example that clearly points to the shifting of an isogloss in the course of the history of the dialects. Historical studies have shown that the Benrather line follows the ancient northern boundary of Jülich and Berg (on both sides of the Rhine). The ik/ich line to the north corresponds to a later boundary of the same duchies (abolished in 1789) and of the Electorate of Cologne (Bloomfield, 1933: 343-44). In assessing the relative significance of political, geographic, and cultural (customs, type of farm house construction, etc.) divisions Bloomfield ranks political boundaries highest. All other divisions that seem to be reflected in major isoglosses are incidental to political boundaries with which they coincide. This view contrasts with that of Frings (see n. 66 above). As to the rate of change following a shifting of political boundaries Bloomfield states: "It is estimated that under older conditions a new political boundary led in less than fifty years to some linguistic difference, and that the isoglosses along a political boundary of long standing would persist, with little shifting for some two hundred years after the boundary had been abolished. This seems to be the primary correlation." In Romance dialectology Heinrich Morf discovered in 1911 that the dialects of Northeastern France followed the boundaries of the bishoprics of Rouen, Beauvais, Amiens, Boulogne, St. Omer, Arras, Tournay, Cambrai, Noyon. These borders in turn reflect the Roman administrative districts, the civitates, which were placed under bishops in the 4th century. These ecclesiastic districts have been preserved through the centuries, whereas political divisions underwent untold changes. (Morf, 1911, especially map 5.)

70) Studied by E. Böhmer, in Deutsche Dialektgeographie 3.

71) According to Martin, 1959: 143.

72) Martin, 1959: 143; described by Botke, 1934.

73) For the sake of clarity Wrede has selected only one particular form illustrating a certain dialect feature to serve as a boundary. Words which might be expected to show the same phenomenon may not follow exactly the same isogloss. For instance, the maken-area between the Benrather and Ürdinger lines has ich instead of the expected ik. Mich and sich occur even further north of the ik/ich line far beyond the maken-area. Depending on which form is chosen to mark the dialect division, the line will run farther to the north or south.

74) According to F. Wrede in DSA: Text.247-254 (text to DSA map 56). His symbols marking the relative significance of dialect subdivisions in descending order have been retained. The form following the colon indicates the isogloss used as a boundary.

75) Cf. n. 67 for asterisked forms.

76) Bremer, "Ethnographie der germanischen Stämme," 1900, reviewed by F. Wrede in Historische Zeitschrift 88.22-43 (1902). A modified version of Bremer's views is found in his reply to this review: "In Deutschland, dessen politische Entwicklung eine weniger einheitliche gewesen ist, sind die alten politischen Grenzen der Sachsen, Franken, Thüringer, Alemannen und Baiern heute noch an der Sprache erkennbar. Aber in der Gegenwart vollzieht sich unaufhaltsam der Prozess einer sprachlichen Nivellierung: die alten Mundartgrenzen werden immer mehr vermischt, die jüngere Generation nähert ihre Mundart mehr und mehr der ideellen deutschen Einheitssprache an, die Tage der Mundart sind gezählt." (Bremer, 1902: 346)

A parallel might be drawn in this context between a view of dialectology as based on tribal borders as against

one based on atlas findings and the pre-structural vs. the structural view of linguistics. In both cases, the adherents of the old have claimed that their results were not so very different from those obtained through the use of new methods and concepts. The difference lies in the assumptions about language which underlie each theory. The fact that traditional and modern methods often yield similar results neither disproves the newer view nor does it validate the old. It merely points out that the validity of a theory is relative to other known theories in the absence of potentially better theories. If the results do not differ materially, a superior theory is characterized by a set of assumptions that are more acceptable than those of other theories. Clearly, a purely data-based system is to be considered more valid than one based only partly on data and partly on preconceived tradition-bound categories.

77) Alemannia 26.253 as quoted by Wagner, 1927: 4.

78) K. Bohnenberger, 1953, describes three models of dialectology: 1) One based entirely on modern dialect evidence (F. Wrede). 2) One attempting to derive modern dialects from their oldest known forms. 3) One which views dialects in terms of tribal settlements. He describes his own position as a compromise between the three: "So scheint zum mindesten für die alemannische Mundart immer noch das vermittelnde Verfahren den Vorzug zu verdienen, das von den heutigen mundartlichen Verhältnissen ausgeht, daneben aber nach Möglichkeit die sprachlichen Gestaltungen der älteren Stufen sowie die Stammesgeschichte heranzieht. Es kann ja auch die Sprachentwicklung als gemischter Vorgang angesehen werden, einerseits beeinflusst durch die Geschichte des Volksstammes, andererseits aber zugleich bestimmt durch die in der Sprache selbst liegenden Gegebenheiten." (Quoted by Wagner, 1927: 4.)

79) Bohnenberger calls Alemannic "die besterforschte unter den heutigen deutschen Grossmundarten." (Quoted by Wagner, 1927: 1.)

80) Fischer, 1895, is also the author of Schwäbisches Wörterbuch, 1901-1936.

81) Schirmunski, 1962.

82) In reading the closing paragraph in the above-mentioned chapter, one wonders what it is exactly that is new or even specifically Marxist about Engels' views to rate the distinguished position he holds in the author's mind: "Der Vergleich dieser neuen Dialektgrenze mit der politischen Karte des mittelalterlichen Deutschland ermöglichte es der modernen deutschen Dialektgeographie deren Entstehung durch die Grenzen der feudalistischen Territorien zu erklären. Diese haben sich in dem politisch zersplitterten Deutschland bis zur Französischen Revolution und den Napoleonischen Kriegen als Haupthindernis für den Verkehr der breiten Volksmassen erhalten. Die Untersuchung Engels zeigt dass diese jüngeren Grenzen ein Ergebnis der Umformung älterer Gegensätze der Stammesdialekte sind. Am Beispiel des fränkischen Dialekts gibt Engels die klassische Probe einer komplizierten Methode zur Rekonstruktion dieser alten sprachlichen Verhältnisse in enger Verbindung mit der Geschichte des Volkes, des Schöpfers und Trägers der betreffenden Sprache." (Schirmunski, 1962: 55.)

F. Engels along with Frings and other non-marxist scholars seem to be firmly convinced of the linguistic significance of Tacitus' mythological three-fold division of the continental Germanic tribes into Ingwäonen, Istwäonen, Ermionen. The Hillevionen and Windiler which Pliny added to this triad are explained (at least by Schirmunski, 1962: 7) as "Nordgermanen" and "Ostgermanen". A careful reading of Tacitus' Germania makes it clear that this division is based on Germanic mythology which is far from reliable as a source of historical information. Tacitus' three tribes

are said to be descended from the three sons of Mannus. But other tribes can be easily accommodated by crediting Mannus with having fathered more than three sons: "Celebrant carminibus antiquis, quod unum apud illos memoriae et annalium genus est, Tuistonem deum terra editum, ei filium Mannum originem gentis conditoremque, Manno tris filios assingnant, e quorum nominibus proximi Oceano Ingaevones, medii Hermiones, ceteri Istvaeones vocentur. Quidam, ut is licentia vetustatis, pluris deo ortos plurisque gentis appellationes, Marsos Gambrivios Suebos Vandelios affirmant, eaque vera et antiqua nomina." (Germania ii).

Schirmunski's weighty book (662 pages) is marred by its ideological overtones, e.g., "Die marxistische Sprachwissenschaft betrachtet die Sprache als 'überaus wichtiges Mittel des menschlichen Umgangs'" (preface, p.1, quoting Lenin). Surely one does not have to be of the Marxist persuasion or a linguist at all to subscribe to such a statement.

83) Martin, 1959: 138-39. A systematic endeavor to make tape recordings of living dialects is underway with the support of the Deutsche Forschungsgemeinschaft. To date 5,500 tapes have been made of almost 1,000 West German towns. Of these tapes 600 have been phonetically transcribed. But only 35 have been published (through 1964) in the "Lautbibliothek der deutschen Mundarten" hrsg. vom Deutschen Spracharchiv, Münster. Vol. 31, Zwirner, 1964, contains instructions on how to make tape recordings of dialects.

84) Bach, 1950: 44.

85) The atlas is a treasure trove for naive spellings whose interpretation can be of great value to the linguistic historian. For instance, the Bavarian form enk, which ends in a voiceless, lenis consonant, is spelled enk 1100 times, eng 640 times, engg 20 times, engk 10 times (DSA: Text.96).

86) Bach, 1950: 47.

87) Occurring in the Zips, Schönwald (South Silesia), also near Brussels, according to Bach, 1950: 47.

88) Schirmunski, 1962: 356.

89) Unrounding of front rounded vowels caused by i-umlaut is generally assumed to have taken place in Bavarian as early as late Middle High German. Michels, 1921: 89-90, quotes evidence of unrounded forms in Bavarian as early as the 12th century (later in Thuringian and Upper Saxon): virsten 'Fürsten'; rhymes of the type: zîten: liuten, cöpfe: nepfe, gelöugen: zeichen, willen: vüllen, höleren: teleren, gediuten: wîte.

[ö] as seen in North Bavarian zöln 'zählen' (DSA 52) is the result of later rounding of [e] before [ɬ]. Cf. [kȫɬə] 'Keller', [söɬwə] 'selbst', [möɬkə] 'melken'.

90) It should be pointed out that the lack of a standardized transcription poses mainly difficulties of interpretation. The isoglosses drawn on the basis of completed questionnaires have been found to be accurate by J. Stuhrmann in "Das Mitteldeutsche in Ostpreussen," 1895. In the 1890's Stuhrmann personally checked the isoglosses in East Prussia by collecting new material along the dividing lines proposed in the atlas. He found the atlas divisions to be in complete agreement with his own findings. See Bach, 1950: 49.

91) Schwarz, 1935:100 discusses the occurrence of scattered euch forms in the Egerland. Documentary evidence of es (nom.) and enk (acc. and dat.) forms is relatively late. The first attested forms are found in Ottakers Reimkronik, in Pez script. rer. austr. III, Ratisb. (= Regensburg) 1745, c. 451. Thus the earliest written evidence of such dual forms dates from the late 13th century. Other modern dialects showing the reflex of a pronominal dual (functioning

as a plural) are the dialect of the Ruhrgebiet around Dortmund, Central Franconian, and Low German dialects which have ink 'you' (DSA 21). Within the Bavarian enk region small pockets with enks for enk exist, possibly through contamination with the nominative form es. As for the age and authenticity of these dual forms, it would be difficult not to assume that they are a genuine retention of the Germanic dual as seen in Go. nom. *jut (not attested as such but inferred from the first person dual according to the proportion weis: wit = jus: *jut), acc. igqis [iŋkwis]; ON nom. it, acc. ykkr; OE git [jit], acc. inc; OS nom. git [jit], acc. ink. It is often assumed (e.g., Prokosch, 1939: 295) that Old High German had lost the dual in prehistoric times and that the Bavarian pronominal dual forms es (also ös) and enk were reintroduced through Gothic (see 1.2.11). Only one form is known to occur in the Old High German corpus: unker zweio (genit.) in Otfried v. Weissenburg (III 22,32). Braune, 1961: 232, suggests that the addition of zweio is indicative of the dual becoming extinct, since its use would be redundant if the dual still had its original force.

92) Pfalz, 1936: 9-19.

93) Wrede's North Bavarian-Upper Palatinate corresponds to the modern North Bavarian. His South Bavarian (now including Austria) is divided into Central Bavarian and South Bavarian.

94) Martin, 1959: 150.

95) Martin, 1959: 150-51.

96) Pfalz, 1937.

97) "Das Nordbairische (auch Nordgauisch oder Oberpfälzisch genannt) weicht seit Jahrhunderten gegenüber dem Mittelbairischen (auch als Donaubairisch bezeichnet) zurück, es gibt

keine Linienbündel, sondern verschieden verlaufende Grenzen einer Übergangszone. Die Lage Regensburgs am Rande des Nordbairischen und sein Übertritt zum Mittelbairischen hat dem Nordbairischen den Mittelpunkt genommen." (Schwarz, 1950: 162)

98) Kranzmayer, 1954.

99) Thus Mitzka, 1943: 52; Schwarz, 1950: 162; Schirmunski, 1962: 30.

100) Martin, 1959: 151.

101) Phonetically the use of [ç] and [x] is only an approximation. At least a third symbol would be required to describe /x/ after central vowels (e.g., [ə]). Since in this dialect [ə] is close to [a] and regarded as an allophone of /a/, it is followed by [ç] in phonemic transcription rather than the customary [x].

102) No phonemic analysis of a North Bavarian dialect is known to me. A few structural analyses of other Bavarian dialects exist, including two recent works: Kufner, 1961 (Central Bavarian), and Kurath, 1965 (South Bavarian). The consonant structure of the Central Bavarian dialect of Munich is quite similar to that of the North Bavarian dialect at hand.

Non-phonemic works on North Bavarian dialects include: A. Hager, Lautlehre der Mundart von Sulzbach i.d.O., 1923; A. Gebhardt, Grammatik der Nürnberger Mundart, (Sammlung kurzer Grammatiken deutscher Mundarten, Bd. 7.) Leipzig, 1907 (East Franconian-North Bavarian transition dialect). The works by Hager and Gebhardt were not available to me. Schirmunski, "Die nordbairische Mundart von Jamburg am Dnjepr (Ukraine)," 1931. The material for this article was collected by the author in the years 1926, 1929, 1930. Jamburg, now Kingisepp, (district of Leningrad), was settled by German colonists in 1793 under Catherine II. The dialect

is North Bavarian, close to, yet different from, the dialect of Bergstetten. By using linguistic evidence, Schirmunski places the home of the settlers in a triangular area roughly between Amberg, Velburg, and Burglengenfeld.

103) There is an analogous alternation of longer and slightly shorter diphthongs before short and long obstruents, respectively. Cf. n. 112.

104) Pfalz, 1936: 15.

105) H. Kufner, 1961, also finds obstruent length to be contrastive in the Munich dialect. His analysis differs from the one presented here in his interpretation of obstruent length as clusters of short obstruents. He sees a parallel in the final cluster of (in his transcription) /ghåbd/ 'gehabt', /gsógd/ 'gesagt', /gredd/ 'geredet'. Since he also describes the morphology and syntax (transformational) of the dialect, he finds the cluster interpretations preferable in terms of higher levels of analysis.

106) Such a grouping together of [h] with [ç] and [x] is not possible in standard German, where [ç] can occur morpheme-initially in words like Chemie, China, -chen. Such words show initial [kh] in the dialect. The diminutive -chen is not native to the dialect, which eliminates the famous Kuh-chen vs. Ku-chen problem.

107) Cf. Kurath, 1965: 28: "Dass dieser Laut nicht ein Geräuschlaut ist, geht daraus hervor, dass er stimmhaft ist und dass seine Verteilung in Anlautfolgen der Verteilung anderer Sonorlaute entspricht."

108) Short words of high frequency like pronouns and adverbs may have long and short vowel variants depending on sentence stress. If a long nasalized vowel phoneme occurs in a short form, nasalization is not present phonetically,

since vowel length is a condition for nasalization: [šȭ~šō~šo] 'schon, already'; [ī~i] 'ich, I'; [mī~mi] 'mich, me'; [ā~a] 'auch, also'.

109) The terms "closing diphthongs" and "centering diphthongs" are used by Malmberg, 1963: 38. Closing diphthongs end in a close up-glide, centering diphthongs are characterized by a central off-glide.

110) /x/ is phonetically transcribed as [ç] after [ə] since [ə] is close to a front vowel articulation. More accurately, a third phonetic symbol would be used to express /x/ after central vowels since the customary units [ç] and [x] are only approximations.

111) Schirmunski, 1931.

112) Analogously, all diphthongs have slightly shortened allophones before long obstruents and before resonant + long obstruent. Since this difference is less conspicuous than the difference in vowel length, it will not be further pursued.

113) The term "morphophonemic" is used in a wider sense here. In the case of the plural a morphemic analysis of the dialect may well establish either vowel quality or consonant length or both together as signaling the plural morpheme. No particular morphemic analysis is implied here.

114) There are two words (possibly more) which contain rounded front vowels in environments other than before [ɬ]: [wüs:tə] 'left', [ōhå] 'whoa'. Both are commands given to draft animals and may be regarded as outside the regular sphere of human communication. Occasionally a farmer may carry over his "animal vocabulary" into a human speech situation, saying [ōhå] for 'halt, stop' (cf. the use of English 'whoa'). In [ōhå] the unusual medial

occurrence of [h] also indicates that such words occupy a special position within the dialect. Another word for 'whoa' is [pr̥:] (usually preferred for horses), which is also abnormal in that it represents the only occurrence of long syllabic r̥. Compare 3.2.15 for /x/ and 3.2.24 for /r/. Compare also the only occurrence of [ǟ] in the interjection [ǟtš] 'serves you right', 4.1.16.

115) In view of the limited number of examples showing contrast between oral and nasal phonemes, each oral vowel phoneme is contrasted with its nasalized counterpart only.

116) Moulton's near-minimal pairs such as (Kor)bes ≠ (Or)bis, (Na)men ≠ (A)men, ben(ahm) ≠ ban(al), (ge)gen ≠ (E)gon, etc. sound rather constrained and far-fetched. But no better examples can be found. His attempt to establish [ə] as a phoneme on the basis of its special features alone is a desirable though not completely satisfying solution. (Moulton, 1961: 3.)

117) Michl Ehbauer's Baierische Weltgschicht, München, 1952, written in Central Bavarian, reveals the following spellings for [ə] on two pages selected at random (pp.96-97): The conventional spelling <e> was used throughout the passage when it occurred before<r> Elsewhere [ə] was spelled <a> in 31 instances (including the indefinite article [ə], infinitive and p.part. ending [-ə]). <e> was used in only two cases to spell [ə]. All centering diphthongs were written with <a> to express the central off-glide: <ia> (10 examples), <oa> (8), <ua> (3), <üa> (2).

118) Kufner, 1961: 26, uses the same analysis for the Central Bavarian dialect of Munich without explaining his reasoning. Since [ə] is also relatively close to the /e/ phoneme, it would be conceivable to combine it with /e/. But /e/ contrasts with [ə] in weakly stressed syllables whereas /a/ does not: [kuɐ̯tə] /kuata/ 'guter, good (masc.)'
[kuɐ̯te] /kuate/ 'gute, good (fem.)'

119) Kufner, 1961: 23, asserts that the occurrence of nasalized vowels is always predictable in the Munich dialect: "Der Grad der Nasalierung ist jedoch so gering, zudem vorhersagbar, dass diese Nasalierung im folgenden nicht eigens gekennzeichnet wird," In a review of Kufner's book (ZMF, 31.277-282, 1964), R. Freudenberg points out that nasalization is not always found before nasal consonants, quoting the minimal pairs [re'n] 'reden' vs. [rẽn] '(ich) renne'; [fen] 'Fäden' vs. [fẽn] 'Föhn'. Kufner himself seems to imply that nasalized vowels are not necessarily followed by nasal consonants when he says: "Nasalvokale werden durch darübergesetzte Schlangenlinie bezeichnet, aber nur wenn kein Nasalkonsonant folgt." (Kufner, 1961: 13.)

120) This failure to find contrastive evidence for /ũ/ ≠ /u/ is not surprising, for the [ū]-allophone of /u/ is relatively rare. It is possible that a larger corpus would contain this contrast. [ũ] is quite common in the North Bavarian-East Franconian transition dialect to the east and north of Nürnberg, where forms like Kind, Hund appear as [kĩt], [hũt]. This development has not taken place in the dialect of Bergstetten.

121. Moulton, 1947. Kufner, 1961: 52, finds that the Munich dialect lacks phonetically marked morpheme-boundaries.

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